



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Bishnupur (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 25.0 - 26.0 °C and minimum temp. of 10.0 – 12.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 46 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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Manipur Centre, Lamphelpat, Imphal - 795 004**



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Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
Sheep/ Goat	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
Pig	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

I. Meghachandra Singh  
Scientist i/c, IAAS



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Chandel (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 24.0 - 26.0 °C and minimum temp. of 10.0 – 11.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 56 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
<b>Sheep/ Goat</b>	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
<b>Pig</b>	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
<b>Fisheries</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

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**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

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During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Churachandpur (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 24.0 - 25.0 °C and minimum temp. of 8.0 – 10.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
Sheep/ Goat	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
Pig	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

I. Meghachandra Singh  
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**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

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Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

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Weather forecast for next five days of Imphal - East (2<sup>nd</sup> to 6<sup>th</sup>  
November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 24.0 - 26.0 °C and minimum temp. of 10.0 – 12.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 43 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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**“Integrated Agromet Advisory Services”**

<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
<b>Sheep/ Goat</b>	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
<b>Pig</b>	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
<b>Fisheries</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

I. Meghachandra Singh  
Scientist i/c, IAAS





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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of  
Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Imphal - West (2<sup>nd</sup> to 6<sup>th</sup>  
November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 24.0 - 26.0 °C and minimum temp. of 10.0 – 12.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 41 % (minimum RH). The average wind speed may be 2-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
Sheep/ Goat	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
Pig	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

I. Meghachandra Singh  
Scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Senapati (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 23.0 - 25.0 °C and minimum temp. of 6.0 – 8.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"> <li>- Incorporate <i>Tricoderma harzianum</i> @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li> <li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li> <li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>



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**“Integrated Agromet Advisory Services”**

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Coccidiosis	- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses. - Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm. - Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.
Sheep/ Goat	Above 3 months of age	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
Pig	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		FMD	- Vaccinate against FMD.
		Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

I. Meghachandra Singh  
Scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Tamenglong (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 24.0 - 25.0 °C and minimum temp. of 10.0 – 11.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 41 % (minimum RH). The average wind speed may be 3-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
<b>Sheep/ Goat</b>	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
<b>Pig</b>	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
<b>Fisheries</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

I. Meghachandra Singh  
Scientist i/c, IAAS





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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> & 31<sup>st</sup> Oct. **3.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.

Weather forecast for next five days of Thoubal (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)

There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 24.0 - 26.0 °C and minimum temp. of 9.0 – 11.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 50 % (minimum RH). The average wind speed may be 0-2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Potato</b>	Land preparation and seed/ tuber treatment and planting		<ul style="list-style-type: none"> <li>- Soil may be prepared to fine tilt for planting potatoes.</li> <li>- Recommended varieties are Kufri Megha, Kufri Jyoti and Kufri Chipsona. Seed rate is 25-30 quintals/ hectare.</li> <li>- Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases.</li> <li>- Sowing may be done at a spacing of 60cm x 15-20cm.</li> <li>- Strict instructions may be followed for seed purpose.</li> </ul>
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>



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Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"><li>- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li><li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li><li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li></ul>
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"><li>- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses.</li><li>- Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.</li></ul>
		Management	<ul style="list-style-type: none"><li>- Cover the wall with hessian cloth/ polysheet during night time.</li><li>- Brooding house must be kept warm.</li><li>- Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.</li></ul>
Sheep/ Goat	Above 3 months of age	Deworming	<ul style="list-style-type: none"><li>- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.</li></ul>
		Ectoparasite	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.</li></ul>
Pig	Above 3 months of age	Swine Fever	<ul style="list-style-type: none"><li>- Vaccinate against swine fever after the age of 3 months.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
		Deworming	<ul style="list-style-type: none"><li>- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.</li></ul>
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q. & H.S.	<ul style="list-style-type: none"><li>- Vaccinate against B.Q. &amp; H.S.</li></ul>
		FMD	<ul style="list-style-type: none"><li>- Vaccinate against FMD.</li></ul>
		Paramphistomes	<ul style="list-style-type: none"><li>- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.</li></ul>
		Ectoparasites	<ul style="list-style-type: none"><li>- Spray Butox @ 2ml in 1 lit of water, twice a week.</li></ul>
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	<ul style="list-style-type: none"><li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li><li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li><li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li></ul>
		Harvest	<ul style="list-style-type: none"><li>- As per market demand harvesting may be started.</li></ul>
		Feeding	<ul style="list-style-type: none"><li>- Feeds should be provided 2 times a day.</li></ul>

I. Meghachandra Singh  
Scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**1<sup>st</sup> November, 2013**

**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 2<sup>nd</sup> to 6<sup>th</sup> November, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> to 31<sup>st</sup> October, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy but mainly clear during afternoon hours of 30<sup>th</sup> &amp; 31<sup>st</sup> Oct. <b>3.6 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 26.9 – 28.0 °C, range of minimum temperature observed was 12.7 – 15.1 °C, mean relative humidity observed in morning and afternoon were 89.7 % and 55.3 % respectively. The average wind speed range was 1.5 – 2.4 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (2<sup>nd</sup> to 6<sup>th</sup> November, 2013)</u></p> <p>There may be no rain upto Wednesday. Weather would mainly dry/ dry over Manipur with clear to mainly clear sky and maximum temp. of 21.0 - 23.0 °C and minimum temp. of 6.0 – 8.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) &amp; 51 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Harvest to post-harvest		<ul style="list-style-type: none"> <li>- Harvest when 80 % of the spikelet turned yellow.</li> <li>- Harvested panicles may be stacked for 5-7 days and turned regularly for 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>Blackgram / Rice bean</b>	Pod formation		<ul style="list-style-type: none"> <li>- Weeding out for proper utilization of nutrients and moisture by the crop.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Apply Captan 50 WP after final land preparation as preventive measures against soil borne diseases. Seed rate: ½ kg seeds for 25 m<sup>2</sup> area.</li> <li>- Check that new sprouts are not damaged.</li> <li>- Use short duration variety (110-120 days crop) so that it may be harvested before rains.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery	Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		<ul style="list-style-type: none"> <li>- Incorporate <i>Tricoderma harzianum</i> @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).</li> <li>- Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato.</li> <li>- Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>



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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Coccidiosis	- Supercox/ Coccidiostats should be given in feed and drinking water as preventive doses. - Administer Amprolium Powder @ 1g/ litre of drinking water for 5-7 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm. - Litter material must be kept dry. The moisture content should not exceed 30%. Formation of cakes/ balls of litter indicate excess moisture.
Sheep/ Goat	Above 3 months of age	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
Pig	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		FMD	- Vaccinate against FMD.
		Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

I. Meghachandra Singh  
Scientist i/c, IAAS