



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of  
Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)

During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. **22.2 mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.

Weather forecast for next five days of Bishnupur (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)

There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 26.0 - 28.0 °C and minimum temp. of 13.0 – 16.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 92 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>



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**“Integrated Agromet Advisory Services”**

<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	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.
<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

**I. Meghachandra Singh**  
Scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of  
Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)

During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. **22.2 mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.

Weather forecast for next five days of Chandel (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)

There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 27.0 - 30.0 °C and minimum temp. of 15.0 – 17.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 89 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>



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**“Integrated Agromet Advisory Services”**

<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	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.
<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

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**MANIPUR BULLETIN**

**29<sup>th</sup> October, 2013**

**Churachandpur**

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Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)

During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. **22.2 mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.

Weather forecast for next five days of Churachandpur (30<sup>th</sup>  
October to 3<sup>rd</sup> November, 2013)

There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 25.0 - 28.0 °C and minimum temp. of 14.0 – 16.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 95 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>





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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	Above 3 months of age	Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
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<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

**I. Meghachandra Singh**  
Scientist i/c, IAAS



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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)</u></p> <p>During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. <b>22.2 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - East (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)</u></p> <p>There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 26.0 - 28.0 °C and minimum temp. of 14.0 – 16.0 °C. RH may reach a maximum value of 100 % (maximum RH) &amp; 88 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.</p>
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**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>



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<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	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.
<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

**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**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of  
Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)

During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. **22.2 mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.

Weather forecast for next five days of Imphal - West (30<sup>th</sup>  
October to 3<sup>rd</sup> November, 2013)

There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 26.0 - 28.0 °C and minimum temp. of 14.0 – 16.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 94 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	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.
<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

**I. Meghachandra Singh**  
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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)</u>	<u>Weather forecast for next five days of Senapati (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)</u>
During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. <b>22.2 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.	There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 24.0 - 27.0 °C and minimum temp. of 12.0 – 15.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 95 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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> </ul>
	Transplanting		<ul style="list-style-type: none"> <li>- 45-60 days old seedlings may be transplanted.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		<ul style="list-style-type: none"> <li>- Prepare raised nursery bed (of 18-20 cm height) for cole crops &amp; tomato.</li> <li>- To avoid soil borne diseases, nursery bed must be dried properly.</li> <li>- Incorporate Captan 50 WP or Carbendazim before sowing.</li> </ul>



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**“Integrated Agromet Advisory Services”**

Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
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.
Pig	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
Cattle / Buffalo/ Mithun	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)</u></p> <p>During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. <b>22.2 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)</u></p> <p>There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 28.0 - 30.0 °C and minimum temp. of 15.0 – 18.0 °C. RH may reach a maximum value of 100 % (maximum RH) &amp; 91 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.</p>
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**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>





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**“Integrated Agromet Advisory Services”**

<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	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.
<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kgbody weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

**I. Meghachandra Singh**  
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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)

During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. **22.2 mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.

Weather forecast for next five days of Thoubal (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)

There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 27.0 - 29.0 °C and minimum temp. of 14.0 – 16.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 90 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</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> <li>- Monitor for insect/ pest infestation on 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>			
Land preparation may be carried after rains only when field conditions permits.			
<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 and Kufri Jyoti. 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> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Onion</b>	Nursery		- 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. - Check that new sprouts are not damaged.
	Transplanting		- 45-60 days old seedlings may be transplanted.
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		- Prepare raised nursery bed (of 18-20 cm height) for cole crops & tomato. - To avoid soil borne diseases, nursery bed must be dried properly. - Incorporate Captan 50 WP or Carbendazim before sowing.
<b>Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)</b>	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Administer Albend @ 30 ml/100 birds in drinking water.
		Ectoparasite	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Ranikhet	- F1 strains live vaccine @ 1 drop on eye or nostril. - Lasota strain vaccine at the age of 7 days (Nasal drop). - R <sub>2</sub> B vaccine at the age of 45-60 days.
		Management	- Cover the wall with hessian cloth/ polysheet during night time. - Brooding house must be kept warm and avoid wet litter material. - Preventive dose of an antibiotic is suggested.
<b>Sheep/ Goat</b>	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.
<b>Pig</b>	Above 3 months of age	Swine Fever	- Vaccinate against swine fever after the age of 3 months.
		Coccidiosis	- Administer Piperazine liquid @ 10ml orally per adult once only.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Deworming	- Deworm using Albendazole @ 1ml/3kg body weight orally once only.
	Piglets (above 10 days old)		- Piglets more than 10 days may be given small quantity of creep feed @ 100-200 g/day.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Paramphistomes	- Deworm with liquid Tolzan-F @ 30ml/kg body weight for lower altitudes.
		FMD	- Vaccinate against FMD.
		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	- If colour & odour of pond water changes then drain out half of the pond water and replace with fresh water. Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feeding	- Feeds should be provided 2 times a day.
Paddy cum fish culture	Fish harvesting		- Fishes may be harvested in paddy cum fish culture practice.
Cat fish (Ngakra)	Feed		- Feed with high protein content 35-40% CP should be given @ 3-5 % body weight.

**I. Meghachandra Singh**  
Scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**29<sup>th</sup> October, 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 30<sup>th</sup> October to 3<sup>rd</sup> November, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 28<sup>th</sup> October, 2013)</u>	<u>Weather forecast for next five days of Ukhrul (30<sup>th</sup> October to 3<sup>rd</sup> November, 2013)</u>
During the past four days the sky was cloudy but partly cloudy during afternoon hours of 28 Oct. <b>22.2 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 21.2 – 27.8 °C, range of minimum temperature observed was 15.5 – 17.2 °C, mean relative humidity observed in morning and afternoon were 93.5 % and 77.0 % respectively. The average wind speed range was 0.2 – 3.2 km/hr.	There may be no rain upto Sunday. The sky may be clear to partly cloudy with maximum temp. of 23.0 - 26.0 °C and minimum temp. of 10.0 – 13.0 °C. RH may reach a maximum value of 100 % (maximum RH) & 90 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

**Main Weather Observations**

Low/medium clouds are seen over Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 01st November, 2013)**

Rain/thundershowers would occur at isolated places over northeastern states.

**Weather Outlook for subsequent 4 days from 01st November to 5th November, 2013**

Weather would be mainly dry/dry over Manipur

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Drain out excess water 10 days before harvesting.</li> <li>- Harvest when 75-80 % of the spikelets are yellow.</li> <li>- Panicles may be stacked for 5-7 days. Turn the heap of panicles 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 rice zero tillage rape seed may be sown (seed rate is 10-12 kg/ ha) when soil in the field is slightly soft.</li> <li>- Apply recommended dose of NPK before sowing.</li> <li>- Recommended variety – M-27.</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.</li> </ul>
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<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>			
Land preparation may be carried after rains only when field conditions permits.			
<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> </ul>
	Transplanting		<ul style="list-style-type: none"> <li>- 45-60 days old seedlings may be transplanted.</li> </ul>
<b>Vegetable nursery (Cole Crops/ Tomato)</b>	Nursery		<ul style="list-style-type: none"> <li>- Prepare raised nursery bed (of 18-20 cm height) for cole crops &amp; tomato.</li> <li>- To avoid soil borne diseases, nursery bed must be dried properly.</li> <li>- Incorporate Captan 50 WP or Carbendazim before sowing.</li> </ul>



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Vegetable nursery (Cole Crops/ Tomato/ Garden pea, etc.)	Land preparation for direct sowing/ transplanting		- Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting). - Transplant 25-30 days old seedlings (4 leaves stage) of cole crops and tomato. - Treat garden pea seeds (variety like Arkel, Azad) with Bavistin @ 2.5 mg/ lit of water before sowing.
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