



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u>	<u>Weather forecast for next five days of Bishnupur (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.	It is likely to have occasional light rains upto 2 <sup>nd</sup> moderate rains from 3 <sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 22.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 65 %. The average wind speed during next five days may be 4 km/hr.

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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**“Integrated Agromet Advisory Services”**

			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

I. Meghachandra Singh  
Sp scientist i/c, IAAS



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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u>	<u>Weather forecast for next five days of Chandel (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.	It is likely to have occasional light rains upto 2 <sup>nd</sup> moderate rains from 3 <sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 22.0 – 24.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 71 %. The average wind speed during next five days may be 4-5 km/hr.

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u>	<u>Weather forecast for next five days of Churachandpur (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.	It is likely to have occasional light rains upto 2 <sup>nd</sup> moderate rains from 3 <sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 20.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 62 %. The average wind speed during next five days may be 4-6 km/hr.

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

I. Meghachandra Singh  
Sp scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Imphal - East (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u></p> <p>It is likely to have occasional light rains upto 2<sup>nd</sup> moderate rains from 3<sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 22.0 – 24.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 69 %. The average wind speed during next five days may be 2-4 km/hr.</p>
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**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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



**“Integrated Agromet Advisory Services”**

			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

I. Meghachandra Singh  
Sp scientist i/c, IAAS



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u>	<u>Weather forecast for next five days of Imphal - West (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.	It is likely to have occasional light rains upto 2 <sup>nd</sup> moderate rains from 3 <sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 21.0 – 24.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 74 %. The average wind speed during next five days may be 2-4 km/hr.

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it.



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



**“Integrated Agromet Advisory Services”**

			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

I. Meghachandra Singh  
Sp scientist i/c, IAAS



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u>	<u>Weather forecast for next five days of Senapati (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.	It is likely to have occasional light rains upto 2 <sup>nd</sup> moderate rains from 3 <sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 26.0 - 30.0 °C and minimum temp. of 18.0 – 21.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 69 %. The average wind speed during next five days may be 2-4 km/hr.

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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



**“Integrated Agromet Advisory Services”**

			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% 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**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Tamenglong (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u></p> <p>It is likely to have occasional light rains upto 2<sup>nd</sup> moderate rains from 3<sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 33.0 °C and minimum temp. of 22.0 – 25.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 75 %. The average wind speed during next five days may be 3-4 km/hr.</p>
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**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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



**“Integrated Agromet Advisory Services”**

			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

I. Meghachandra Singh  
Sp scientist i/c, IAAS



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u>	<u>Weather forecast for next five days of Thoubal (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.	It is likely to have occasional light rains upto 2 <sup>nd</sup> moderate rains from 3 <sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 32.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 63 %. The average wind speed during next five days may be 2-4 km/hr.

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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



**“Integrated Agromet Advisory Services”**

			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
<b>Citrus</b>	For nursery	<b>leaf minor</b>	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	<b>Powdery mildew</b>	If <b>powdery mildew</b> is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	Above 3 months of age	Deworming	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
<b>Pig</b>	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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

**MANIPUR BULLETIN**

**30<sup>th</sup> August, 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 31<sup>st</sup> August to 4<sup>th</sup> September, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (26<sup>th</sup> to 29<sup>th</sup> August, 2013)</u></p>	<p align="center"><u>Weather forecast for next five days of Ukhrul (31<sup>st</sup> August to 4<sup>th</sup> September, 2013)</u></p>
<p>During the past three days the sky was mainly cloudy to cloudy. <b>27.7 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.2 – 31.9 °C, range of minimum temperature observed was 21.6 – 22.0 °C, mean relative humidity observed in morning and afternoon were 89.0 % and 74.3 % respectively. The average wind speed range was 0.5 – 1.8 km/hr.</p>	<p>It is likely to have occasional light rains upto 2<sup>nd</sup> moderate rains from 3<sup>rd</sup> Sept onwards. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 25.0 - 29.0 °C and minimum temp. of 16.0 – 20.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 69 %. The average wind speed during next five days may be 3-4 km/hr.</p>

**Weather Forecast for next 3 days (upto 0830 hours IST of 2<sup>nd</sup> September, 2013)**

Rain/thundershowers would occur at many places over north-east.

**Weather Outlook for subsequent 4 days from 2<sup>nd</sup> to 6<sup>th</sup> September, 2013**

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit of water.
		Bacterial leaf blight	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean</b>	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) on dry days.
		Rust	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
<b>Groundnut</b>	Vegetative to pegging	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
		Tikka disease	- Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
<b>Blackgram/ Rice bean</b>	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Rabi vegetables</b>	Nursery preparation		Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chattai/ tin sheets may be used for it.



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			Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable source.
<b>Colocassia</b>	Harvesting		Harvest colocassia after rains for better cooking quality.
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting , make pit size of 1x1x1 foot.
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		<b>leaf eating caterpillar, thrips &amp; mite.</b>	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
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		Ectoparasites	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age	Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite (Hypoderma Warbles)	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
<b>Poultry</b>	All susceptible age groups	Ectoparasites	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Endoparasite	- Deworm with Piperazine Hexahydrate @ 50ml/100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then replace with the fresh water. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked.
	Nurseries		Apply agri-lime @250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
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