



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Imphal-West (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 22.0 – 23.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 66 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Senapati (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 18.0 – 20.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 66 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Tamenglong (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 32.0 – 34.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 65 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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**“Integrated Agromet Advisory Services”**

Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

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During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Thoubal (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 20.0 – 22.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 75 % (minimum RH). The average wind speed may be 4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
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Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Ukhrul (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 28.0 – 30.0 °C & minimum temp. 17.0 – 19.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 69 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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



**“Integrated Agromet Advisory Services”**

Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Bishnupur (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 31.0 – 32.0 °C & minimum temp. 21.0 – 22.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 73 % (minimum RH). The average wind speed may be 4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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**“Integrated Agromet Advisory Services”**

Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Chandel (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 32.0 – 34.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 74 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



**ICAR Research Complex for N.E.H. Region  
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**“Integrated Agromet Advisory Services”**

Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Churachandpur (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 21.0 – 22.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 75 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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



**“Integrated Agromet Advisory Services”**

Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**12<sup>th</sup> September, 2014**

**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 13<sup>th</sup> to 17<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (9<sup>th</sup> to 11<sup>th</sup> September, 2014)

During past three days sky was partly cloudy to mainly cloudy but cloudy during afternoon hours of 9<sup>th</sup> September. **1.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 29.8 – 33.9 °C, range of minimum temperature observed was 22.5 – 22.9 °C, mean relative humidity observed in morning and afternoon were 87.3 % and 66.3 % respectively. The average wind speed range was 0.7 – 1.2 km/hr.

Weather forecast for next five days of Imphal-East (13<sup>th</sup> to 17<sup>th</sup> September, 2014)

There may be light rain upto Wednesday. Sky may be partly cloudy to mainly cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 21.0 – 23.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 70 % (minimum RH). The average wind speed may be 3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Kharif Rice</b>	Flowering/ dough stage		- Maintain water level of 5-8cm. - Weeding may be done before top dressing. - Regular monitoring of pest and disease infestation is essential.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7 ml/ 15 litres of water.
		Leaf folder, plant hopper	Spray Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
<b>Soybean</b>	Pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. - Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water. - Weeding may be done to avoid hairy caterpillar.
<b>Groundnut</b>	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
<b>Blackgram</b>	Vegetative	Hairy caterpillar	Weeding may be done. Spray Chloropyriphos 20 EC @ 2.5 ml/ 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. After proper drying, store grains/ seeds in well ventilated godowns.
<b>Horticulture Crops</b>			
<b>Tree bean</b>	Trees above 7yrs age/ Bearing plants		Apply (60gm DAP + 10g MOP + 20g Carbofuran 3G) per plant.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility. - Drain out excess water in low lying area.
<b>Turmeric</b>	Rhizome initiation	Taphrina Leaf Blotch and other leaf spot diseases	- For Taphrina Leaf Blotch and other leaf spot diseases apply Trichoderma harzianum @ 5-10gm/ litre water as foliar spray and in soil drenching.
<b>Onion/ Tomato</b>	Nursery		- Raise nurseries of onion & tomato under polyhouses.
<b>Cabbage/ Cauliflower/ Broccoli</b>	Nursery		- Nursery raising may be done. - Sterilize nursery bed soil. Soil fumigation/ soil solarization may be done for both weeds and soil microbes. For this chemical or bioagents may be used as per choice. - Mix seeds with soil for better distribution of seeds while broadcasting and maintain a spacing of 2 inches between rows.



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**“Integrated Agromet Advisory Services”**

Garden pea/ french bean	Land preparation to sowing		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and raised beds had been prepared.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.</b> <b>- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.</b>			
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	Vaccinate against Ranikhet disease.
		Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.
		Deworming	Give Piperazine liquid @ 40ml for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.
Pig	Above 3 months of age (as and when required)	Coccidial infection (Diarrhea)	Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Skin infection	Apply Himax ointment on the affected portion two times daily.
		Deworming	Give Nilzan/ Tolzan- F @ 30ml/ 100 kg body weight.
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow – out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.

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