



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th December, 2014

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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Churachandpur (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 21.0 – 23.0 °C & minimum temp. 3.0 – 5.0 °C. Relative humidity may reach upto 100 % (maximum RH) & 49 % (minimum RH). The average wind speed may be 3-5 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		- Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		- Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		- Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			- Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			- Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		- Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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



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MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)	Weather forecast for next five days of Imphal-East (13th to 17th December, 2014)
During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.	There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 21.0 – 23.0 °C & minimum temp. 4.0 – 5.0 °C. Relative humidity may reach upto 100 % (maximum RH) & 47 % (minimum RH). The average wind speed may be 2-5 km/ hr during next five days.

Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		- Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		- Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		- Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			- Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			- Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		- Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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



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MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Imphal-West (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 21.0 – 23.0 °C & minimum temp. 3.0 – 5.0 °C. Relative humidity may reach upto 100 % (maximum RH) & 45 % (minimum RH). The average wind speed may be 2-6 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		<ul style="list-style-type: none"> - Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		<ul style="list-style-type: none"> - Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		<ul style="list-style-type: none"> - Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			<ul style="list-style-type: none"> - Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		<ul style="list-style-type: none"> - Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		<p>For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil</p>



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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



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MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Senapati (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 19.0 – 21.0 °C & minimum temp. 1.0 – 3.0 °C. Relative humidity may reach upto 99 % (maximum RH) & 43 % (minimum RH). The average wind speed may be 2-5 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		- Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		- Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		- Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			- Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			- Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		- Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Animal Sciences			
* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:			
Type of Farming	Stage & Management	Agro-metrological advisories	
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.	

(I. Meghachandra Singh)
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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Tamenglong (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 22.0 – 24.0 °C & minimum temp. 3.0 – 4.0 °C. Relative humidity may reach upto 100 % (maximum RH) & 44 % (minimum RH). The average wind speed may be 2-6 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		<ul style="list-style-type: none"> - Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		<ul style="list-style-type: none"> - Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		<ul style="list-style-type: none"> - Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			<ul style="list-style-type: none"> - Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		<ul style="list-style-type: none"> - Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		<p>For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil</p>



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Manipur Centre, Lamphelpat, Imphal - 795 004**



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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



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Manipur Centre, Lamphelpat, Imphal - 795 004**



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MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Thoubal (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 21.0 – 23.0 °C & minimum temp. 3.0 – 4.0 °C. Relative humidity may reach upto 100 % (maximum RH) & 54 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		- Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		- Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		- Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			- Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			- Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		- Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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



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MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Ukhrul (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 19.0 – 21.0 °C & minimum temp. 1.0 – 3.0 °C. Relative humidity may reach upto 99 % (maximum RH) & 51 % (minimum RH). The average wind speed may be 3-4 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		<ul style="list-style-type: none"> - Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		<ul style="list-style-type: none"> - Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		<ul style="list-style-type: none"> - Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			<ul style="list-style-type: none"> - Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		<ul style="list-style-type: none"> - Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		<p>For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil</p>



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Animal Sciences			
* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.
Fishery:			
Type of Farming	Stage & Management	Agro-metrological advisories	
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.	

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



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MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Bishnupur (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 22.0 – 23.0 °C & minimum temp. 3.0 – 5.0 °C. Relative humidity may reach upto 100 % (maximum RH) & 51 % (minimum RH). The average wind speed may be 2-4 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		<ul style="list-style-type: none"> - Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		<ul style="list-style-type: none"> - Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		<ul style="list-style-type: none"> - Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			<ul style="list-style-type: none"> - Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		<ul style="list-style-type: none"> - Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		<p>For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil</p>



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Manipur Centre, Lamphelpat, Imphal - 795 004**



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th December, 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 13th to 17th December, 2014 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (9th to 11th December, 2014)</p> <p>During past three days sky was mainly clear. No rainfall was recorded during past three days. Maximum temperature range observed was 23.3 – 23.4 °C, range of minimum temperature observed was 6.8 – 7.0 °C, mean relative humidity observed in morning and afternoon were 92.3 % and 59.6 % respectively. The average wind speed range was 0.5 – 1.2 km/hr.</p>	<p>Weather forecast for next five days of Chandel (13th to 17th December, 2014)</p> <p>There may be light rain on Tuesday. Sky will be mainly clear to partly cloudy with maximum temp. of 22.0 – 24.0 °C & minimum temp. 3.0 – 5.0 °C. Relative humidity may reach upto 99 % (maximum RH) & 58 % (minimum RH). The average wind speed may be 3-4 km/ hr during next five days.</p>
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Weather Forecast for next 3 days * 0830 hours IST of 13th December 2014

Fog would occur at isolated places over Manipur during next 72 hours.

Weather Warning during next 3 days *

Dense fog (Visibility 200 m or less) would occur at isolated places over Manipur on 12th and 13th December, 2014

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ mustard	Vegetative		<ul style="list-style-type: none"> - Apply foliar application of urea {5 pumps per sangam @ 10g/15lit of water} before rain. - Thinning may be done where the plant population is high.
Field pea	Vegetative		<ul style="list-style-type: none"> - Avoid nipping of young shoots for vegetable.
Lentil	Sowing to vegetative		<ul style="list-style-type: none"> - Lentils may be sown with minimum tillage or zero tillage in rows. - Plant to plant distance may be maintained by thinning.
Rabi maize	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing rabi maize may be started. - Rabi maize may be sown as intercrop with potato or pulses. Ridges along east-west direction may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Banana			<ul style="list-style-type: none"> - Farmers are advised to remove the dry leaves of banana plant. - 200g Urea, 300g SSP and 500g MOP should be applied in three split doses at two, six and eight months after planting. Hence, the farmers are advised to adjust the dose as per age of the plant. - It is to be followed by watering to make the nutrients easily available to the plants. In a pit three no. of plants should be maintained which are of approximately three and eight months along with the mother plant. In banana if Sigatoka leaf spot is observed, spray Calixin @ 1 ml/l of water.
Tree Bean	Pre-bearing and bearing plants		<ul style="list-style-type: none"> - Spray Thiomethoxam @ 5g/15 lit of water against stem borer. - To have sustainability of regular production of fruit tree, different age groups of plants may be maintained if the existing trees are more than 30 years.
Vegetables/ fruits	Soil application		<p>For applying organic formulation in the soil, prepare Sanjivak by mixing 100kg cowdung +100 lit of cow urine + 500g of jiggery + 250 lit of water in a 500 lit capacity closed drum. Ferment for 10 days. Dilute it with 20 times water and sprinkle in one acre of land, either as soil</p>



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			application or along with irrigation water. - For kitchen garden, take 2kg cowdung and 200g oil cake in 20litres capacity plastic bucket and keep it to ferment for 10 days. Dilute it with 20 times water and apply in soil for vegetables and flowers. - To avoid unpleasant smell, it may be kept in open for 1-2 days.
Onion	Transplanting to vegetative		- Maintain 50-60 days old seedling transplanted. Transplant at a spacing of 10-20cm or 10-15cm as per choice. Moist the bed before transplanting. Cover the seedlings only upto the root portion. Slight watering during morning and evening is very much necessary for at least 7-10 days till the seedlings get established. - Give light irrigation if the soil is dry.
Tomato	Nursery to transplanting		- Raise nursery. Also, prepare land to transplant raised nurseries. - Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the last crop was rice, maize, etc. to avoid bacterial wilt.

Animal Sciences

* Cover side walls of birds/ animals sheds with polythene sheet or hessian cloth to protect from cold weather.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give preventive dose of Coximar @ 1g/ lit of drinking water for 7 days along with glucose.
		Management	- Mix deactivated lime powder @ 2 kg per 100 sq. ft. area in litter material. - Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A.
Sheep/ Goat	Above 3 months of age (as and when required)	Tetanus	- In pregnant animals, inject Tetanus Toxoid @ 0.5ml at 3.5 months of pregnancy.
		Ectoparasite	Use Butox liq. @ 2ml/ 4 litres of water and wash the animal with the solution.
		Deworming	- Give Albomac suspension @ 5ml per adult.
Pig	Above 3 months of age (as and when required)	Skin infection	Give Ivermectin (Indectin tab.) @ 10mg/33kg body weight.
		Deworming	- Deworm 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q.	- Vaccinate against B.Q. @ 1ml orally/ sub- cutaneously especially in young stock.
		F.M.D.	- Vaccinate against F.M.D.
		Ticks/ Wounds	Topicure spray may be used twice daily on the affected parts.

Fishery:

Type of Farming	Stage & Management	Agro-metrological advisories
Carp/ Catfish culture	Harvesting and stock maintenance	- Fish harvesting can be done. - Stock fish for next year and for this practices mentioned below may be done in small scale. - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0 - 1.5m. - Feeds should be provided 1-2 times a day @ 2-3 % 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.

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