



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Chandel (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 29.0 – 32.0 °C & minimum temp. 20.0 – 22.0 °C. Relative Humidity may reach a maximum of 99 % (maximum RH) & 88 % (minimum RH). The average wind speed may be 2-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<i>For Kharif Maize:</i> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Churachandpur (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 19.0 – 21.0 °C. Relative Humidity may reach a maximum of 99 % (maximum RH) & 86 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<b>For Kharif Maize:</b> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

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During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Imphal-East (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 29.0 – 32.0 °C & minimum temp. 21.0 – 23.0 °C. Relative Humidity may reach a maximum of 100 % (maximum RH) & 84 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<b>For Kharif Maize:</b> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
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<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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**17<sup>th</sup> June, 2014**

**Imphal-West**

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Weather forecast for next five days of Imphal-West (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
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* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<b>For Kharif Maize:</b> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Senapati (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 18.0 – 20.0 °C. Relative Humidity may reach a maximum of 98 % (maximum RH) & 77 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<i>For Kharif Maize:</i> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Tamenglong (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 20.0 – 22.0 °C. Relative Humidity may reach a maximum of 99 % (maximum RH) & 83 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<b>For Kharif Maize:</b> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Thoubal (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 19.0 – 21.0 °C. Relative Humidity may reach a maximum of 100 % (maximum RH) & 89 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<i>For Kharif Maize:</i> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Ukhrul (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 27.0 – 29.0 °C & minimum temp. 18.0 – 19.0 °C. Relative Humidity may reach a maximum of 99 % (maximum RH) & 85 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<b>For Kharif Maize:</b> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**17<sup>th</sup> June, 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 18<sup>th</sup> to 22<sup>nd</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to June, 2014)

During 13<sup>th</sup> to 15<sup>th</sup> sky was mainly clear to partly cloudy and mainly cloudy during afternoon of 13<sup>th</sup> & morning hours of 15<sup>th</sup> June, but it was cloudy on 16<sup>th</sup> June. **137.0 mm** rainfall was recorded during past four days. Maximum temperature range observed was 26.3 – 33.6 °C, range of minimum temperature observed was 19.9 – 22.9 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 75.8 % respectively. The average wind speed range was 1.7 – 3.3 km/hr.

Weather forecast for next five days of Bishnupur (18<sup>th</sup> to 22<sup>nd</sup> June, 2014)

There may be moderate to heavy rains upto Friday. Sky may be mainly cloudy to cloudy with maximum temp. of 29.0 – 32.0 °C & minimum temp. 20.0 – 23.0 °C. Relative Humidity may reach a maximum of 99 % (maximum RH) & 87 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
* Avoid water logging in the crop fields.			
<b>Rice</b>	Flowering to milky dough in early kharif rice		- Hand weeding may be done or use rotatory weeder for weeding. - Maintain water level at 5-8 cm.
	Land preparation to sowing of Main Kharif rice		- Use certified seeds for sowing. Rate: 60 kg/ ha. - Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed. - Rice field may be prepared for nursery rising before 20-25 days of sowing. Select the site where irrigation is available
<b>Maize</b>	<b>For Kharif Maize:</b> vegetative		- After rain weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.
<b>Soybean / Groundnut</b>	Vegetative		- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
<b>Blackgram</b>	Sowing to vegetative		-Weeding may be done if the weed population is high. - Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.
<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. - Rodent management should be done in and around godowns.
<b>Horticulture Crops</b>			
<b>Lime/ Lemon and papaya</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Avoid water logging area or frost prone or area where high wind speed is experienced. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Colocasia</b>	Vegetative	Alternaria leaf spot	Apply foliar spray of Trichoderma @ 10gm/ litre of water at 7 days interval.
<b>Ginger/ Turmeric</b>	Vegetative	Leaf Spot	To prevent Leaf Spot disease, apply Bordeaux mixture (5:5:50) after 4 – 5 weeks of sowing or Captan @ 1.5 g/l of water.
<b>Tree bean</b>	Transplanting		- Prepare the pit of size 3x3x3 feet in upland area. - Incorporate the top soil with 7 kg FYM + 2-3g of Carbendazim per pit before planting. - Transplant 1 ½ to 2 yrs old healthy seedling.



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			<ul style="list-style-type: none"> <li>- With temporary fencing it may be protected from stray of cattle.</li> <li>- Transplanting may be completed before monsoon.</li> <li>- For pre-bearing plant (4-5 yrs old) apply 10g Urea + 40g DAP + 10g MOP per plant and spray Thiachlorpid 21.7% SC @ 1ml/ lit of water + Carbendazim @ 1g/ lit of water.</li> </ul>
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**Animal Sciences**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

Name of the animal	Growth stage	Disease/infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Endoparasites	<ul style="list-style-type: none"> <li>- De-worm using Piperazine citrate.</li> <li>- Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.</li> </ul>
		Coccidiosis	<ul style="list-style-type: none"> <li>- As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of water.</li> <li>Add sanitizer in drinking water.</li> </ul>
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
<b>Pig</b>	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Endoparasite/ Ectoparasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.

**Fishery:**

- Encircle pond with net to avoid escape of fish during rainy days.

<b>Carp culture</b>	nurseries	Pond and water	- Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea + 75kg SSP in nursery pond water 15 days before spawn stocking.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day.
		Fish	20-30 million spawn can be stocked in one ha pond.
	Grow -out	Pond and water	Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.
		Fish	8000-10,000 fingerlings can be stocked per ha. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field	Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-40% of the field may be converted into trench/pond for fish culture.	
<b>Cat fish (Ngakra)</b>	Pond and water	Pond water depth may be maintained at 0.5 m - 0.8 m.	
	Fish	5000 fish can be stocked in one hectare. Male and female brooders should be maintained in separate tanks for successful breeding.	
	Feed	Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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