



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Ukhrul (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 25.0 – 28.0 °C & minimum temp. 10.0 - 13.0 °C. Relative Humidity may reach a maximum of 80 % (maximum RH) & 34 % (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
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		<ul style="list-style-type: none"> <li>- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill.</li> <li>- Transplanting may be done upto mid of April.</li> <li>- To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.</li> </ul>
		Plant hopper & case worm	<ul style="list-style-type: none"> <li>- To prevent plant hopper &amp; case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.</li> </ul>
<b>Rabi Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- Urea may be applied @ 66kg/ ha during inter-culture operation.</li> <li>- Thinning may be done. Maintain single plant per hill.</li> </ul>
		Stem borer	<ul style="list-style-type: none"> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</li> </ul>
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		<ul style="list-style-type: none"> <li>- Land preparation for sowing of soybean/ groundnut/ blackgram may be started.</li> <li>- Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.</li> <li>- Rodent management should be done in and around godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		<ul style="list-style-type: none"> <li>- Interculture operations may done.</li> <li>- In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha</li> </ul>
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.



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<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Bishnupur (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 12.0 - 16.0 °C. Relative Humidity may reach a maximum of 94 % (maximum RH) & 36 % (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
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		<ul style="list-style-type: none"> <li>- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill.</li> <li>- Transplanting may be done upto mid of April.</li> <li>- To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.</li> </ul>
		Plant hopper & case worm	<ul style="list-style-type: none"> <li>- To prevent plant hopper &amp; case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.</li> </ul>
<b>Rabi Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- Urea may be applied @ 66kg/ ha during inter-culture operation.</li> <li>- Thinning may be done. Maintain single plant per hill.</li> </ul>
		Stem borer	<ul style="list-style-type: none"> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</li> </ul>
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		<ul style="list-style-type: none"> <li>- Land preparation for sowing of soybean/ groundnut/ blackgram may be started.</li> <li>- Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.</li> <li>- Rodent management should be done in and around godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		<ul style="list-style-type: none"> <li>- Interculture operations may done.</li> <li>- In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha</li> </ul>
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.



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<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Chandel (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 14.0 - 17.0 °C. Relative Humidity may reach a maximum of 82 % (maximum RH) & 30 % (minimum RH). The average wind speed may be 4-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill. - Transplanting may be done upto mid of April. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.
		Plant hopper & case worm	- To prevent plant hopper & case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.
<b>Rabi Maize</b>	Vegetative		- Urea may be applied @ 66kg/ ha during inter-culture operation. - Thinning may be done. Maintain single plant per hill.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		- Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.
<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>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		- Interculture operations may done. - In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.





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<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

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Weather forecast for next five days of Churachandpur (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 12.0 - 15.0 °C. Relative Humidity may reach a maximum of 95 % (maximum RH) & 35 % (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
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		<ul style="list-style-type: none"> <li>- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill.</li> <li>- Transplanting may be done upto mid of April.</li> <li>- To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.</li> </ul>
		Plant hopper & case worm	<ul style="list-style-type: none"> <li>- To prevent plant hopper &amp; case worm, apply Carbofuran 3G @ 1kg/ sangam 7-10 days before uprooting.</li> </ul>
<b>Rabi Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- Urea may be applied @ 66kg/ ha during inter-culture operation.</li> <li>- Thinning may be done. Maintain single plant per hill.</li> </ul>
		Stem borer	<ul style="list-style-type: none"> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</li> </ul>
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		<ul style="list-style-type: none"> <li>- Land preparation for sowing of soybean/ groundnut/ blackgram may be started.</li> <li>- Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.</li> <li>- Rodent management should be done in and around godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		<ul style="list-style-type: none"> <li>- Interculture operations may done.</li> <li>- In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha</li> </ul>
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.



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

<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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





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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Imphal - East (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have light rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 13.0 – 16.0 °C. Relative Humidity may reach a maximum of 96 % (maximum RH) & 40 % (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
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill. - Transplanting may be done upto mid of April. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.
		Plant hopper & case worm	- To prevent plant hopper & case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.
<b>Rabi Maize</b>	Vegetative		- Urea may be applied @ 66kg/ ha during inter-culture operation. - Thinning may be done. Maintain single plant per hill.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		- Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.
<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>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		- Interculture operations may done. - In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.



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



**“Integrated Agromet Advisory Services”**

<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Imphal - West (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have light rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 26.0 – 30.0 °C & minimum temp. 13.0 – 16.0 °C. Relative Humidity may reach a maximum of 97 % (maximum RH) & 42 % (minimum RH). The average wind speed may be 3-6 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill. - Transplanting may be done upto mid of April. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.
		Plant hopper & case worm	- To prevent plant hopper & case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.
<b>Rabi Maize</b>	Vegetative		- Urea may be applied @ 66kg/ ha during inter-culture operation. - Thinning may be done. Maintain single plant per hill.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		- Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.
<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>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		- Interculture operations may done. - In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.



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

<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Senapati (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 11.0 - 14.0 °C. Relative Humidity may reach a maximum of 93 % (maximum RH) & 40 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		<ul style="list-style-type: none"> <li>- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill.</li> <li>- Transplanting may be done upto mid of April.</li> <li>- To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.</li> </ul>
		Plant hopper & case worm	<ul style="list-style-type: none"> <li>- To prevent plant hopper &amp; case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.</li> </ul>
<b>Rabi Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- Urea may be applied @ 66kg/ ha during inter-culture operation.</li> <li>- Thinning may be done. Maintain single plant per hill.</li> </ul>
		Stem borer	<ul style="list-style-type: none"> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</li> </ul>
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		<ul style="list-style-type: none"> <li>- Land preparation for sowing of soybean/ groundnut/ blackgram may be started.</li> <li>- Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.</li> <li>- Rodent management should be done in and around godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		<ul style="list-style-type: none"> <li>- Interculture operations may done.</li> <li>- In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha</li> </ul>
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.





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

<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Tamenglong (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 13.0 - 16.0 °C. Relative Humidity may reach a maximum of 97 % (maximum RH) & 42 % (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
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill. - Transplanting may be done upto mid of April. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.
		Plant hopper & case worm	- To prevent plant hopper & case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.
<b>Rabi Maize</b>	Vegetative		- Urea may be applied @ 66kg/ ha during inter-culture operation. - Thinning may be done. Maintain single plant per hill.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		- Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.
<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>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		- Interculture operations may done. - In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
<b>Colocasia</b>	Land preparation for planting		- Prepare land for planting colocasia.



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**“Integrated Agromet Advisory Services”**

<b>Cole crops</b>	Head / curd formation stage to harvesting		- Spray Dichlorovos 76 EC @ 0.5ml/lit of water against green larva of Plutella/ diamond black moth in head / curd formation stage. - Mature crops may be harvested in time for quality product.
<b>Mandarin &amp; Lemon</b>	For grown up		- Khasi Mandarin apply 500g Urea, 1kg SSP & 400g MOP per plant along with 30 kg cowdung manure compost. - Kachai Lemon apply 350g Urea, 400g SSP & 300g MOP along with 30 kg cowdung manure compost per plant.

**Animal Sciences**

\* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry</b>	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using Lasota strain vaccine through ocular route if the age of chick is less than 21 days and through nasal route if it is older than 21 days. - Vaccinate even in the face of Ranikhet disease outbreak with administration of high generation antibiotic like Salbactum/ Ceftriazone, etc.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

Type of Farming	Stage	management	Agro-metrological advisories
<b>Carp culture</b>	nurseries	Pond and water	Ponds water should be clean and clear free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.
		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow -out	Pond and water	Regular manuring with a slurry of RCD @1500kg/ha at interval of 30 days should be done.
		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		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
	Fish		Male and female brooder fishes may be segregated for breeding operations.
	Feed		Well balanced feed may be fed @ 3-5% body weight/day.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**8<sup>th</sup> April, 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 9<sup>th</sup> to 13<sup>th</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (4<sup>th</sup> to 7<sup>th</sup> April, 2014)

The sky was partly cloudy to cloudy but mainly clear on 5<sup>th</sup> April. **8.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 23.1 – 29.5 °C, range of minimum temperature observed was 11.5 – 15.5 °C, mean relative humidity observed in morning and afternoon were 90.75 % and 57.25 % respectively. The average wind speed range was 1.7 – 4.2 km/hr.

Weather forecast for next five days of Thoubal (9<sup>th</sup> to 13<sup>th</sup> April, 2014)

It is likely to have rain with thunderstorm upto Sunday. Sky may be mainly clear to partly cloudy with maximum temp. of 27.0 – 29.0 °C & minimum temp. 13.0 - 16.0 °C. Relative Humidity may reach a maximum of 93 % (maximum RH) & 35 % (minimum RH). The average wind speed may be 3-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
* Harvest rain water. Drainage may be constructed well in and around the crop field.			
<b>Field Crops</b>			
<b>Early kharif rice</b>	Transplanting		- Row planting of 30-45 days old seedlings with 2-3 seedlings per hill may be done at a spacing of 25x10 cm using beaded rope. If seedlings are old, transplant 3-4 seedlings per hill. - Transplanting may be done upto mid of April. - To enhance the establishment of transplanted seedlings, water depth of 2-3cm may be maintained in the field after transplanting then it may be increased gradually upto 5-8 cm after a week.
		Plant hopper & case worm	- To prevent plant hopper & case worm, apply Carbofuran 3G @ 1kg/sangam 7-10 days before uprooting.
<b>Rabi Maize</b>	Vegetative		- Urea may be applied @ 66kg/ ha during inter-culture operation. - Thinning may be done. Maintain single plant per hill.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<b>Soybean/ Groundnut/ Blackgram</b>	Land preparation		- Land preparation for sowing of soybean/ groundnut/ blackgram may be started. - Apply 10 – 13 t/ha or 2.5 – 3 t/sangam of FYM or compost by mixing thoroughly in the soil 1 - 2 weeks before sowing.
<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>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	If Red Pumpkin Beetle infestation is observed, Carbaryl (0.2%) or Chloropyrifos (0.05%) may be sprayed.
<b>Tomato</b>	Flowering and fruiting		- Interculture operations may done. - In tomato foliar fertilization of nitrogen is very much effective. It may be done as follows: For 30 days old crop : 9.71 kg Urea in 1000 lt of water per ha For 40 days old crop : 14.4 kg Urea in 1500 lt of water per ha For 50 days old crop : 19.3 kg Urea in 2000 lt of water per ha
<b>Onion</b>	Flower bud formation	Thrips/ leaf minor	- Spray Dichlorovos 76 EC @ 0.5ml/lit of water or Cypermethrin @ 2ml/lit of water to the crop during bulb formation stage.
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**Animal Sciences**

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		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Deworming	Minthal bolus @ ½ bolus for 20 kg body weight orally.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.
		Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	B.Q.	Vaccinate against Black Quarter.
		Skin infection	- Add Butox @ 2ml in 1 lit of water and brush the animal using the solution, twice a week.

**Fishery**

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		Feed	Well balanced feeds should be provided 2-3 times a day @ 5-10% body weight/day
		Fish	20-30 million spawn can be stock in 1 ha pond.
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		Feed	Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.
<b>Paddy cum fish culture</b>	Field		Prepare trenches/channels in rice field of depth 1.0 - 1.5m can be start. 30-40% of the rice field can be converted into trenches/ditch/channels for paddy cum fish culture.
<b>Cat fish (Ngakra)</b>	Pond and water		Pond water may be replenished with fresh water maintaining a depth of 1m.
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