



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Bishnupur (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 32.0 – 34.0 °C & minimum temp. 16.0 - 18.0 °C. Relative Humidity may reach a maximum of 69 % (maximum RH) & 24 % (minimum RH). The average wind speed may be 4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).



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	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactam/ Ceftriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Chandel (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 32.0 – 35.0 °C & minimum temp. 16.0 - 19.0 °C. Relative Humidity may reach a maximum of 60 % (maximum RH) & 22 % (minimum RH). The average wind speed may be 4-6 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).



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	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactum/ Cetriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

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Weather forecast for next five days of Churachandpur (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 30.0 – 33.0 °C & minimum temp. 14.0 - 17.0 °C. Relative Humidity may reach a maximum of 63 % (maximum RH) & 22 % (minimum RH). The average wind speed may be 4-6 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).





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**“Integrated Agromet Advisory Services”**

	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactum/ Ceftriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

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Weather forecast for next five days of Imphal - East (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 14.0 - 17.0 °C. Relative Humidity may reach a maximum of 80 % (maximum RH) & 25 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).



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**“Integrated Agromet Advisory Services”**

	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactum/ Cetriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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





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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Imphal - West (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 32.0 – 34.0 °C & minimum temp. 13.0 - 17.0 °C. Relative Humidity may reach a maximum of 77 % (maximum RH) & 25 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).



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	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactum/ Ceftriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Senapati (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 29.0 – 32.0 °C & minimum temp. 13.0 - 16.0 °C. Relative Humidity may reach a maximum of 76 % (maximum RH) & 25 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).
	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.



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**“Integrated Agromet Advisory Services”**

Cucurbits	Vegetative	Red Pumpkin Beetle	- Use Methyl Euginol as trap @ 4-10 traps/ sangam. Steps to prepare trap: - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Euginol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.
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
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	- Vaccinate again all the vaccinated flock using F-1/ 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 antibiotic like Salbactum/ Ceftriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		Coccidiosis	- Add Amprolium Hydrochloride powder @ 2g/ litre of drinking water for 5-7 days. Give only medicated water during 5 days.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
Pig	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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
Carp culture	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.
Paddy cum fish culture	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.

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

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Tamenglong (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 32.0 – 35.0 °C & minimum temp. 16.0 - 18.0 °C. Relative Humidity may reach a maximum of 72 % (maximum RH) & 25 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).





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**“Integrated Agromet Advisory Services”**

	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactum/ Cetriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Thoubal (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 31.0 – 34.0 °C & minimum temp. 15.0 - 18.0 °C. Relative Humidity may reach a maximum of 71 % (maximum RH) & 24 % (minimum RH). The average wind speed may be 4-6 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Potato</b>	Storage	Black Heart Disease	To prevent Black Heart Disease in potatoes, it should not be stored and transit at high temperature (above 32 °C). The storage rooms should be well ventilated. Do not pile up potato bags too high.
<b>Horticulture Crops</b>			
<b>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).



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	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.
<b>Cucurbits</b>	Vegetative	Red Pumpkin Beetle	- Use Methyl Eugenol as trap @ 4-10 traps/ sangam. <i>Steps to prepare trap:</i> - Cut the ½ litre empty mineral water bottle into two halves. - Mix 2-3 drops of Methyl Eugenol in 200ml of water in the lower half, cover the solution with the upper half of the bottle in inverted position so that a funnel like structure is made and beetles are lured.

**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 F-1/ 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 antibiotic like Salbactam/ Ceftriazone, etc. - While giving vaccine, double dose of Lasota strain must be given @ 200 doses for 100 birds either in plain drinking water or along with Amulspray in drinking water @ 6g/ litre of water.
		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 B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
<b>Pig</b>	Above 3 months of age (as and when required)	Swine Fever	- SFV (Swine Fever vaccine) @1ml sub- cutaneously inside thigh must be administered after the age of 3 months.
		FMD	- Vaccinate against 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.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Endoparasite	- Administer Albend liq. @ 15 ml orally once and repeat after 7 days.
		B.Q.	- Vaccinate against Black Quarter. - Out-breaks of Black Quarter has been reported at Tangkham and Sinam village of Imphal-East district. Especially, vaccinate the animals in these areas after consulting doctor/ trained hand.
		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.

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



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**MANIPUR BULLETIN**

**18<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 19<sup>th</sup> to 23<sup>rd</sup> April, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (15<sup>th</sup> to 18<sup>th</sup> April, 2014)

The sky was mainly clear but partly cloudy to mainly cloudy during afternoon hours of 15<sup>th</sup> and 17<sup>th</sup> April. **No** rainfall was recorded during past three days. Maximum temperature range observed was 31.4 – 31.7 °C, range of minimum temperature observed was 12.1 – 14.4 °C, mean relative humidity observed in morning and afternoon were 77.0 % and 61.3 % respectively. The average wind speed range was 3.5 – 4.2 km/hr.

Weather forecast for next five days of Ukhrul (19<sup>th</sup> to 23<sup>rd</sup> April, 2014)

It is likely to have no rain upto Wednesday. Sky may be mainly clear to partly cloudy with maximum temp. of 28.0 – 32.0 °C & minimum temp. 13.0 - 15.0 °C. Relative Humidity may reach a maximum of 62 % (maximum RH) & 23 % (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
<b>Field Crops</b>			
<b>Early kharif rice</b>	Vegetative		- Maintained optimum water depth in the field. - One or two hand weeding may be done after 20-30 days of transplanting.
<b>Maize</b>	<b>For Rabi Maize</b> Vegetative to flowering & silking	Stem borer	- Weeding may be done. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
	Sowing		In upland areas farmers can start cultivation of maize. Apply 60kg of urea, 65kg of DAP and 30 kg of MOP as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.
<b>Soybean</b>	Land preparation		- 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. Apply 44 kg of urea, 375kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 1t/ha or 250 kg/sangam may be done nearly one month before sowing.
<b>Groundnut</b>	Land preparation		Apply 44 kg of urea, 375kg of SSP or 130 kg of DAP and 67 kg of MOP per ha as a basal application during final ploughing or incorporated at the time of sowing. Liming @ 500 kg/ha or 125 kg/sangam may be done in the furrows at the time of sowing.
<b>Blackgram</b>	Land preparation		- 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>Ginger &amp; Turmeric</b>	Land preparation		- Treat the seed rhizome with fungicide like Carbendazim @ 2gm/kg seed with dry or wet method. If wet method is applied then treated seed should be allowed to dry in shade before sowing.
	Sowing of ginger		Ginger pieces weighing 25-30 gm having 1 or 2 buds should be used as seed/ planting material and should be sown at 25cm x 25-30cm (25cm plant to plant and 25-30cm row to row).
	Sowing of turmeric		Turmeric pieces weighing 30-35 g having 1 or 2 buds must be used as seed and sown at 25cm X 40-45cm.
<b>Tomato</b>	Flowering and fruiting	Mite	- To prevent small sucking insects in the lower surface of leaves, use Ethion 0.05% or Neem oil @2-3 ml / lit of water.



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Animal Sciences			
* Measures against mosquitoes breeding may be taken up. Also, use net to avoid entry of mosquitoes in the shed.			
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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.
Sheep/ Goat	Above 3 months of age (as and when required)	Deworming B.Q.	- Minthal bolus @ ½ bolus for 20 kg body weight orally. - Vaccinate against B.Q.
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