



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Bishnupur (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 30.0 - 33.0 °C and minimum temp. of 20.0 – 23.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 74 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Chandel (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 31.0 - 35.0 °C and minimum temp. of 21.0 – 24.0 °C. The maximum RH is likely to attain max of 97 % and minimum RH of 74 %. The average wind speed during next five days may reach upto max. value of 5 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Churachandpur (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 31.0 - 34.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 74 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
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**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Imphal - East (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 30.0 - 33.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 79 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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



**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Imphal - West (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 29.0 - 33.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 74 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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



**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Senapati (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 28.0 - 32.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 98 % and minimum RH of 75 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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



**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Tamenglong (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 30.0 - 34.0 °C and minimum temp. of 20.0 – 23.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 69 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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



**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Thoubal (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 76 %. The average wind speed during next five days may reach upto max. value of 6 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @ 3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/ black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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**“Integrated Agromet Advisory Services”**

<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	Pond water	Water depth for nurseries: 0.5-0.8m. Pond water must be manured with RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval.	
	Feed	Feed with high protein content 35-40% CP feed @ 5-8% body weight.	
	Fish numbers	8000-10000 fingerlings can be stocked in 1 ha	



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**18<sup>th</sup> June, 2013**

**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> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> June, 2013)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 2.3 mm rainfall was recorded during past four days. Maximum temperature range observed was 30.4 – 33.6 °C, range of minimum temperature observed was 22.1 – 23.5 °C, mean relative humidity observed in morning and afternoon were 80.0 and 68.0 % respectively. The average wind speed range was 1.8 – 3.7 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Ukhrul (19<sup>th</sup> to 23<sup>rd</sup> June, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 25.0 - 29.0 °C and minimum temp. of 16.0 – 19.0 °C. The maximum RH is likely to attain max of 98 % and minimum RH of 78 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain filling		- Maintain water depth of 5-8 cm.
	(Kharif) Nursery		- Land may be ploughed and puddle thoroughly for transplanting. Irrigate the field upto 5-7 cm depth. Submerge the soil for about 15-20 days before transplanting to obtain a weed free plot.
<b>Maize</b>	Cob formation (Summer maize)		- Weeding may be done. - Maintain proper drainage system to avoid water logging in and around the crop field.
<b>Soybean / Groundnut</b>	Vegetative		- Weeding and earthing-up can be done after 35 days of sowing. - Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.
<b>Blackgram/ Rice bean</b>	Sowing		- Sowing may be done by broadcasting or dibbling at a spacing of 15 x 30 cm for blackgram and row to row spacing of 45cm for rice bean. - Treat the seed with Thiram or Captan @3 kg/ha.
<b>Storage</b>			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
<b>Horticulture Crops</b>			
<b>Ginger/ Turmeric</b>	Vegetative		- Weeding as well as earthing up may be done. - Crops that were planted in the month of March may be top dressed with 25kg DAP + 10 Kg MOP/ sangam in upland areas.
<b>Colocassia</b>	Vegetative		- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam. - As prophylactic measures spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval.
<b>Chilli/ Capsicum/ Tomato</b>	Nursery to transplanting		Nurseries can be raised in low cost polyhouses. If seedlings are ready it may be transplanted.
<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean</b>	Planting		- These fruit plants may be planted in half moon terrace in the hills. Maintain sufficient spacing for good growth. Cover crop may be grown to check soil erosion and improve soil fertility across the slope. Inter-crop with green gram/black gram in the 1 <sup>st</sup> year of newly established orchard. Avoid crops which get easily infected with virus (like tomato/chilli/okra) and heavy feeder crops (like ginger/ turmeric/maize/ sweet potato) as inter crop.



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<b>Animal Sciences</b>			
* Use water sanitizer to keep clean drinking water for animals especially during rainy days.			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Goat</b>	All age groups except three months or below	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
<b>Pig</b>	Above 3 months of age	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination. - For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
<b>Cattle / Buffalo/ Mithun</b>	All age groups except three months or below	Hump sore	- Apply Butox @ 3ml/lit of water while brushing the animals. - Standard systemic insecticide may be sprayed around the shed to control mosquitoes and flies. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days. - Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.
<b>Poultry</b>	All susceptible age groups	<b>Coccidiosis</b>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<b>Pox</b>	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate @ 30 ml/100birds in 3-5 lit of water for birds upto 6weeks old and 60ml/100 birds in 5-10 lit of water for birds above 6weeks of age to protect from <i>Ascaridia galli</i> , <i>Heterakis gallinae</i> , <i>Capillaria App.</i> , etc.
		<b>Management</b>	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material. - Cover side walls of poultry sheds with polythene sheet to protect from rain.
<b>Fisheries</b>			
* Pond water must be made free from unwanted plants and insects with a depth of 1.0 - 1.5 m. Maintain p <sup>H</sup> of pond water at 7.0-7.5.			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	If p <sup>H</sup> of pond water is lower then above value, apply agri-lime @250kg/ha at valley and 300kg at hilly areas.
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