



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Bishnupur (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 91 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
---	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.

**Animal Sciences**

\* 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>	Above 3 months of age	- 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. - 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. - 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.
		Management	- 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. - 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.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Chandel (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 24.0 - 29.0 °C and minimum temp. of 19.0 – 21.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 92 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
---	---

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil @ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.
<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>	Above 3 months of age	- 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. - 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. - 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.
		<b>Management</b>	- 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. - 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>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Churachandpur (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 33.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 89 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
---	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.

**Animal Sciences**

\* 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>	Above 3 months of age	- 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. - 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. - 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.
		Management	- 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.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Imphal - East (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 31.0 °C and minimum temp. of 19.0 – 21.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 88 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
---	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.
<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>	Above 3 months of age	- 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. - 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. - 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.
		<b>Management</b>	- 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. - 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>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Imphal - West (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 32.0 °C and minimum temp. of 19.0 – 21.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 72 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
---	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.
<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>	Above 3 months of age	- Fasciolosis	- 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. - 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. - 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.
		<b>Management</b>	- 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. - 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>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 26.0 - 31.0 °C and minimum temp. of 19.0 – 21.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 84 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
--	---

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.
<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>	Above 3 months of age	- 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. - 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. - 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.
		<b>Management</b>	- 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. - 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>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 26.0 - 32.0 °C and minimum temp. of 20.0 – 21.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 88 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
--	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.
<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>	Above 3 months of age	- 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. - 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. - 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.
		<b>Management</b>	- 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. - 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>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Thoubal (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 25.0 - 30.0 °C and minimum temp. of 19.0 – 21.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 92 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
---	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.

**Animal Sciences**

\* 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>	Above 3 months of age	- Fasciolosis	- 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. - 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. - 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.
		Management	- 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. - 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.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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**

**21<sup>st</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 22<sup>nd</sup> to 26<sup>th</sup> June, 2013 as given below:

<p align="center"><u>Significant past weather for the preceding bi-weekly of Imphal - West (18<sup>th</sup> to 20<sup>th</sup> June, 2013)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy. No rainfall was recorded during past four days. Maximum temperature range observed was 30.6 – 33.3 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 85.0 and 58.3 % respectively. The average wind speed range was 2.4 – 3.9 km/hr.</p>	<p align="center"><u>Weather forecast for next five days of Ukhrul (22<sup>nd</sup> to 26<sup>th</sup> June, 2013)</u></p> <p>It is likely to have fairly widespread moderate to heavy rains with thunderstorms during next four days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 23.0 - 28.0 °C and minimum temp. of 14.0 – 19.0 °C. The maximum RH is likely to attain max of 98 % and minimum RH of 88 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
---	--

**Monsoon Watch:** Southwest monsoon has been active over Andaman & Nicobar Islands, Gangetic West Bengal and Kerala

**Main Weather Observation:** Kalpana 1Cloud Imagery at 1730 hrs IST shows convective clouds over parts of Manipur

**Weather Forecast for next 3 days (upto 0830 hours IST of 23<sup>rd</sup> June, 2013):** Rain/thundershowers would occur at many places over northeast

**Weather Outlook for subsequent 4 days from 23<sup>rd</sup> to 27<sup>th</sup> June, 2013:** Rain/thundershowers would occur at many places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	(Pre-kharif) Grain maturity		<ul style="list-style-type: none"> <li>- Maintain water depth of 5-8 cm. Drain out excess water if accumulated in field due to moderate and heavy rains during next four days.</li> <li>- Drain the fields 10-15 days before the expected harvest date to hasten maturity and grain ripening.</li> <li>- Rodent management must be taken up when grains mature.</li> </ul>
	(Kharif) Nursery and land preparation of main field		<ul style="list-style-type: none"> <li>- Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>- Maintain 2-3cm water level initially and drain out completely before sowing. Maintain water level to just submerge soil surface and expose the green aerial sprouts.</li> <li>- Land may be ploughed and puddled thoroughly for transplanting. Maintain water depth of 5-7 cm depth.</li> </ul>
<b>Maize</b>	Cob formation to maturity (Summer maize)		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to moderate and heavy rains during next four days.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Weeding and earthing-up can be done after 35 days of sowing.</li> <li>- Surrounding area must be kept clean atleast upto 60 days after sowing to avoid leaf eating caterpillars/ insects.</li> </ul>
<b>Blackgram/ Rice bean</b>	Sowing		<ul style="list-style-type: none"> <li>- 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.</li> <li>- Treat the seed with Thiram or Captan @3 g/kg.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocassia</b>	Vegetative		<ul style="list-style-type: none"> <li>- After the wet spell, earthing up may be done in 45-50 days old plants and top dress with 25 kg DAP/ sangam.</li> <li>- As prophylactic measure against leaf blight, spray Redomil@ 1.5g/ litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after the wet spell.</li> </ul>
<b>French Bean</b>	Fruiting to harvesting		<ul style="list-style-type: none"> <li>- Weeding may be done after the wet spell. Harvest beans regularly before it gets affected with moderate to heavy rains.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cucurbits</b>			Some short duration varieties of hybrid cucumber like Chiatai F and Pusa sanjog may be grown as off season crop.
<b>Ginger/ Turmeric</b>	Vegetative		- Avoid water logging in and around the crop field during moderate to heavy rains during next four days.
<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.

**Animal Sciences**

\* 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>	Above 3 months of age	- 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. - 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. - 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.
		Management	- 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.

**Fisheries**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. 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 changes, 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: 1.0 m. 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. Add RCD @ 5000kg/ha at initial then 500-800kg/ha at 15 days interval as manure.	
	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	