



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Chandel (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 29.0 – 32.0 °C & minimum temp. 19.0 – 21.0 °C. Relative humidity may reach upto 89 % (max RH) & 53 % (min RH). The average wind speed may be 3-4 km/ hr during next five days. The wind direction is likely to be westerly.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<ul style="list-style-type: none"> <li>- At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</li> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg



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			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Churachandpur (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 17.0 – 20.0 °C. Relative humidity may reach upto 98 % (max RH) & 67 % (min RH). The average wind speed may be 2-4 km/ hr during next five days. The wind direction is likely to be southerly.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<p>At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</p> <ul style="list-style-type: none"> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
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**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
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**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg



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**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

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**Weather forecast for next five days of Imphal- East (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 17.0 – 20.0 °C. Relative humidity may reach upto 99 % (max RH) & 55 % (min RH). The average wind speed may be 2-3 km/ hr during next five days. The wind direction is likely to be westerly to north-westerly

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
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<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
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<b>Colocasia</b>	Vegetative		<p>At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</p> <ul style="list-style-type: none"> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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**Animal Sciences**

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		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
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**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
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**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Imphal- West (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 18.0 – 21.0 °C. Relative humidity may reach upto 99 % (max RH) & 60 % (min RH). The average wind speed may be 2 km/ hr during next five days. The wind direction is likely to be westerly to north-westerly

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<ul style="list-style-type: none"> <li>- At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</li> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg



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**Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Senapati (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 15.0 – 18.0 °C. Relative humidity may reach upto 94 % (max RH) & 50 % (min RH). The average wind speed may be 2 km/ hr during next five days. The wind direction is likely to be North-westerly.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<p>At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</p> <ul style="list-style-type: none"> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg





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



**“Gramin Krishi Mausam Seva”**

			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Tamenglong (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 28.0 – 31.0 °C & minimum temp. 18.0 – 20.0 °C. Relative humidity may reach upto 98 % (max RH) & 67 % (min RH). The average wind speed may be 2 km/ hr during next five days. The wind direction is likely to be south-westerly.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativo@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<p>At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</p> <ul style="list-style-type: none"> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg



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



**“Gramin Krishi Mausam Seva”**

			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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



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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Thoubal (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 28.0 – 30.0 °C & minimum temp. 18.0 – 20.0 °C. Relative humidity may reach upto 97 % (max RH) & 59 % (min RH). The average wind speed may be 4 km/ hr during next five days. The wind direction is likely to be north-westerly.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<ul style="list-style-type: none"> <li>- At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</li> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg





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



**“Gramin Krishi Mausam Seva”**

			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Ukhrul (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 26.0 – 29.0 °C & minimum temp. 15.0 – 18.0 °C. Relative humidity may reach upto 86 % (max RH) & 43 % (min RH). The average wind speed may be 2-3 km/ hr during next five days. The wind direction is likely to be Westerly to North-westerly.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.</li> </ul>
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<ul style="list-style-type: none"> <li>- At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</li> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg



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



**“Gramin Krishi Mausam Seva”**

			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

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



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



**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN**

**26<sup>th</sup> May, 2015**

**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 27<sup>th</sup> to 31<sup>st</sup> May, 2015 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (22<sup>nd</sup> to 25<sup>th</sup> May, 2015)**

During last four days sky was mainly clear to partly cloudy. **24.0 mm** rainfall was recorded during last four days. Maximum temperature range observed was 28.2 – 30.3 °C, range of minimum temperature observed was 18.2 – 19.5 °C, mean relative humidity observed in morning and afternoon were 86.25 % and 64.5 % respectively. The average wind speed range was 1.5 – 5.1 km/hr.

**Weather forecast for next five days of Bishnupur (27<sup>th</sup> to 31<sup>st</sup> May, 2015)**

There may be light to moderate rains upto Sunday. Sky will be partly cloudy to mainly cloudy with maximum temp. of 27.0 – 30.0 °C & minimum temp. 18.0 – 20.0 °C. Relative humidity may reach upto 98 % (max RH) & 60 % (min RH). The average wind speed may be 2 km/ hr during next five days. The wind direction is likely to be westerly to north-westerly

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre-kharif Rice</b>	Grain filling stage		<ul style="list-style-type: none"> <li>- Maintain optimum water level.</li> <li>- Check for any insect-pest infestation in the crop.</li> </ul>
<b>Kharif Rice</b>	Nursery to land preparation of main field		<ul style="list-style-type: none"> <li>- Maintain 2-3cm water level initially and drain out drain out completely before sowing. Increase water level to just submerge soil surface and expose the green aerial sprout after sowing.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> </ul>
<b>Rabi Maize</b>	Cob maturity to harvesting		<ul style="list-style-type: none"> <li>- For seeds harvest when the colour of silk turns black and it must be dried to 13-14% moisture content for storage. Store the seeds along with 2-3 layers of sheaths.</li> </ul>
<b>Kharif maize</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sowing may be continued.</li> <li>- Weeding may be done for crops field.</li> </ul>
<b>Soybean</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Sow seed @ 40-45 kg/ha or 10-11.3 kg of seed /sangam and the recommended variety is J.S.335. Sowing may be done at spacing of 45cm x 30cm.</li> <li>- Treat seeds with Nativio@2g/kg seeds or with Bavistin@2.5g/kg seed or with Thiram.</li> </ul>
<b>Groundnut</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Seed rate is 100 – 110 kg of kernel /ha and the recommended varieties are ICGS-75 &amp; JL-24. Sow seeds at spacing 30cm x 15cm.</li> <li>- Treat seeds with Imidacloprid @ 2ml/ litre water or Bavistin @ 2.5g/ kg seed or with Thiram.</li> </ul>
<b>Blackgram</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Plot must be kept weed free to avoid insect/ pest.</li> <li>- Seed rate is 10-15 kg seeds/ ha. Sowing may be done by broadcasting or line sowing.</li> </ul>
<b>Rice bean</b>	Vegetative		Interculture operation may be done to reduce weed population to avoid insect/ pest. Apply Atrazine or Simazine @ 2kg/ha a.i. is effective for weed control.
<b>Storage (seed)</b>			<ul style="list-style-type: none"> <li>- Dry, clean and store the seeds in RC-seed bins after proper drying of seeds and charcoal. Check for moisture content or weight of seeds. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
<b>Horticulture Crops</b>			
<b>Colocasia</b>	Vegetative		<p>At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.</p> <ul style="list-style-type: none"> <li>- 45-50 days old plants may be top dressed with 25 kg DAP/ sangam.</li> <li>- Prophylactic measures against leaf blight should be taken up. Spray</li> </ul>



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



**“Gramin Krishi Mausam Seva”**

			Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell.
<b>Litchi</b>	Nursery		As the temperature is rising, present weather is favorable for nursery raising or transplanting of Litchi. Two years old seedlings may be used for planting during rainy season. Prepare pit of 1m in diameter and 1m in depth. Mix the top soil with 20-25 kg FYM. Keep a distance of 7.5 to 9 m from plant to plant.
<b>Grapes</b>	Transplanting		Prepare pit at a spacing of 3m x 3m under the polyhouse. One year old seedling (variety Thomson seedless) may be planted. Give life saving irrigation.
<b>Lime/ Lemon</b>	Transplanting		- In fertile upland area, prepare pits of size 2x2x2 feet to transplant the seeded or grafted seedlings from a reliable source. - Incorporate 10-12 kg of FYM and Trichoderma @ 20g/ pit with the top soil.
<b>Turmeric</b>	Vegetative		- Weeding and interculture operation may be done and apply 100kg Urea and 300kg kg SSP at 2-3 months.
<b>Cauliflower</b>	Nursery		- Preparation of nursery for early cauliflower in the upland area may be done. It may also be raised, if movable rain protective structures are available with the farmers.

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Management	- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during the day. - Avoid caking of litter materials. - Use plastic/polythene sheets on the walls of the sheds to protect from rain. - Use only wholesome water. Do not provide muddy/ pond/ river water as there are chances of attack of coli bacilliosis. - Check and repair any water leakage in the shed.
		Coccidiosis	- Give Amprolium Powder @ 2g/lit of drinking water for 5 to 7 days.
<b>Sheep/ Goat</b>	Above 3 months of age (as and when required)	Black Quarter/ Haemorrhagic Septicaemia and F.M.D.	Vaccinate against B.Q./ H.S. and FMD using proven vaccine of the diseases mentioned.
		Fascioliosis	Give Tolzan-F @ 0.5ml/10kg body weight in association with vitamins.
<b>Pig</b>	All age groups	Preventive measures	Wholesome/ clear water must be provided after adding potassium permanganate/ sanitizer for drinking water. Pond water must be given after proper treatment.
		Deworming	Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle / Buffalo/ Mithun</b>	Above 3 months of age (as and when required)	Skin infections	- Use Butox liq. @ 2ml/ litres of water and brush the animal using the solution at 15 days interval. * For Mithun, give Ivermectin @ 200 mg per kg body weight at the time of salt feeding.
		Black Quarter/ Haemorrhagic Septicaemia	Vaccinate against B.Q./ H.S. using proven vaccine of the diseases mentioned.
		F.M.D.	- Vaccinate against F.M.D.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.5 m. Apply Lime/ Green AQ for maintaining good quality water.
		Feed	Provide 2-3 times @ 5-10% body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
	Brooder	Pond water and feed	Maintain minimum depth of 2.0-2.2 m. Provide feed @ 3-5 % body weight per day.
	Breeding	Hormone	Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg





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



**“Gramin Krishi Mausam Seva”**

			for grass carp.
	Hatcheries	water	Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days.

(I. Meghachandra Singh)  
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