



**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Imphal East (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 28 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 54 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be South East-Easterly to North North-Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



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**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>



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	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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



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		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
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		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Abendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
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		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Senapati (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 29 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 53 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be South East-Easterly to Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>





## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Tamenglong (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 28 to 29 °C & minimum temp. 20.0 to 21.0 °C. Relative humidity may reach upto 100 % (max RH) & 58 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be South Easterly to South Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



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**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>



## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Thoubal (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 28 °C & minimum temp. 21.0 to 22.0 °C. Relative humidity may reach upto 100 % (max RH) & 69 % (min RH). The average wind speed may be 0-4 km/hr. Wind direction may be South East Easterly to North Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>





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**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>➤ Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>➤ Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>➤ One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>➤ Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>➤ At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>➤ For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>➤ Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>➤ High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>➤ Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>➤ Four leaf stage, young plants may be transplanted after rain</li> <li>➤ Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>➤ Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>➤ Seed collection should be done preferably on bright sunshine hours.</li> <li>➤ After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>➤ As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>■ Fruit rot</li> <li>■ Fruit fly</li> <li>■ Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>➤ Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>➤ Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>➤ Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>➤ Maintain water at a depth of 2.5-3 ft.</li> <li>➤ Use new slips having atleast 4-5 nodes for planting</li> <li>➤ Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>➤ Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>➤ Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Provide only clean/wholesome drinking water only</li> <li>➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>➤ Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>■ Coccidiosis</li> <li>■ Deworming</li> </ul>	<ul style="list-style-type: none"> <li>■ Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>■ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>➤ Give multivitamins @15ml orally</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>➤ De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>



## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Ukhrul (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 28 to 29 °C & minimum temp. 21.0 to 22.0 °C. Relative humidity may reach upto 99 % (max RH) & 68 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to South Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



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**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>



## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Bishnupur (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 29 °C & minimum temp. 21.0 to 23.0 °C. Relative humidity may reach upto 100 % (max RH) & 67 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be South East Easterly to Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>



## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Chandel (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 26 to 28 °C & minimum temp. 22.0 to 23.0 °C. Relative humidity may reach upto 99 % (max RH) & 75 % (min RH). The average wind speed may be 2-5 km/hr. Wind direction may be South East-Easterly to South west Westerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



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**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**



Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
		De-worming	<ul style="list-style-type: none"> <li>De-worming of animals should be done using Albendazole/Levamisole @7.5 mg/kg b.wt. or ivermectin @50mg/kg b. wl.</li> </ul>
Pig	All age groups	Care and management	<ul style="list-style-type: none"> <li>Mineral mixture be added in feed @ 10-20g/adult animal</li> </ul>





## ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



	except the young ones	Mites infestation Enteric disease Diarrhoea & Dysentery	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> <li>➤ Use Livocin @ 7.5 mg per kg b.wt. 3-5 days.</li> <li>➤ Prompt treatment with Antibiotics Sulpha drugs.</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
		Endoparasites	<ul style="list-style-type: none"> <li>➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.</li> </ul>
		Care & management	<ul style="list-style-type: none"> <li>➤ Mix enough quantity salts in feed and water</li> <li>➤ If the animals do not have access to green fodders, vitamin A injection/ supplements should be given.</li> <li>➤ Food supplements may be given @20-30 gm/animals.</li> <li>➤ Care should be taken to protect yoke gall/bursitis.</li> <li>➤ Do not let animals graze in irrigated fodder fields/meadows</li> <li>➤ After the birth of the self the new born must be fed with Colostrum within the first two hours.</li> <li>➤ Give Calmore Forte @100ml orally once daily</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
	Grow out	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.5-2.0m</li> <li>➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Sampling of fish for growth, disease (if any) should be done by regular netting.</li> <li>➤ Partial harvesting of marketable size fishes are also recommended</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ Feed should be provided @ 3-5 % body weight per day</li> <li>➤ Feed can be fed at 2 times a day.</li> </ul>
	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****5<sup>th</sup> July, 2016****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 6<sup>th</sup> to 10<sup>th</sup> July, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (1<sup>st</sup> to 4<sup>th</sup> July, 2016)**

The sky remained variable to overcast. Rainfall of 69.2 mm was recorded during past four days. Maximum temperature range observed was 30.5 to 32.1 °C, range of minimum temperature observed was 21.6 to 22.3 °C, mean relative humidity observed in morning and afternoon were 92.75 % and 87.25 % respectively. The average wind speed range was 3.9 to 4.9 km/hr.

**Weather forecast for next five days of Churachandpur (6<sup>th</sup> to 10<sup>th</sup> July, 2016)**

Likely to have light to moderate rains upto Sunday. Sky will remain mainly cloudy to overcast, with maximum temp. 27 to 28 °C & minimum temp. 23.0 to 24.0 °C. Relative humidity may reach upto 100 % (max RH) & 67 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be South South-Easterly to Southerly during the next five days.

**Weather outlook for subsequence 2 days from 10<sup>th</sup> to 12<sup>th</sup> July, 2016**

**Rainfall at most places very likely over northeastern states**

**Weather warning for next five days \***

**Heavy rain very likely at isolated places over Manipur on 8<sup>th</sup> to 9<sup>th</sup> July, 2016**

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Pre kharif rice</b>	Maturity to Harvesting		<ul style="list-style-type: none"> <li>➤ Drain the water in the field about <b>10-15</b> days before expected date of harvesting</li> <li>➤ Rice can be harvested when 80% of panicles turn hard &amp; golden yellow.</li> <li>➤ <b>Over maturity</b> should be avoided to reduce shattering losses.</li> <li>➤ If the crops are ready to harvest, then harvest it in sunny days.</li> </ul>
<b>Main kharif rice</b>	Nursery for transplanting		<ul style="list-style-type: none"> <li>➤ For <b>Wet Seedling</b>, Pre-soaked seeds may be seeded in the fields which can be kept moist (wet). The excess water should be drained out before seedling.</li> <li>➤ Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling before transplanting</li> <li>➤ Uproot the seedling of about 18-25 days old for line Planting</li> <li>➤ Maximum of 2-3 seedling/hill; 20-25 cm row to row &amp; 10 cm plant to plant spacing should be given for line transplanting.</li> <li>➤ Seedling of Main season rice can be raised upto first week of July and can be transplanted within 3<sup>rd</sup> week of July (for late transplanting).</li> <li>➤ <b>Weed control</b>: Apply Butachlor @ 25 kg/ ha within one week of transplanting</li> </ul>
<b>Groundnut</b>	Seedling to vegetative		<ul style="list-style-type: none"> <li>➤ Earthing-up &amp; weeding should be done before rain to avoid hairy caterpillar.</li> <li>➤ Maintain proper drainage system to avoid water logging.</li> <li>➤ If not sown early, sowing may be done before 1<sup>st</sup> fortnight of July.</li> </ul>
<b>Ginger/ Turmeric</b>	Vegetative		<ul style="list-style-type: none"> <li>➤ Weeding and inter-culture operation may be done and apply 100 Kg Urea and 300 Kg SSP at 2-3 months.</li> <li>➤ Avoid water logging in and around the crop field.</li> </ul>
<b>Soybean</b>	Sowing		<ul style="list-style-type: none"> <li>➤ Sow seed @ 40-45 Kg/ha or 10-11.3 kg of seed/sangam and recommended variety is J.S.335 at seed spacing of 30x15 sq cm.</li> <li>➤ If not sown early, sowing must be done before 1<sup>st</sup> fortnight of July</li> <li>➤ Hand weeding should be done before 30-35 days, after sowing.</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>Early Cauliflower</b>	Nursery		<ul style="list-style-type: none"> <li>➤ Raise nursery of early cauliflower in raised nursery beds (18-20 cm).</li> </ul>
<b>Pineapple</b>	Fruiting		<ul style="list-style-type: none"> <li>➤ Spray Zineb @ 2g/lit of water.</li> </ul>



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Orange/ Lemon	Vegetative		<ul style="list-style-type: none"> <li>Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.</li> <li>Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk.</li> </ul>
Tree bean	Transplanting/ Fertilizer application		<ul style="list-style-type: none"> <li>One year or more than a year old quality seedling may be transplanted in the pit.</li> <li>Recommended spacing is 10x10 m from plant to plant and row to row</li> <li>At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyrifos 20 EC + 1.5 g Mancozeb + Carbendazim per pit.</li> <li>For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.</li> </ul>
Turmeric/ Coriander	Intercropping		<ul style="list-style-type: none"> <li>Coriander variety Green Wonder or local one may be sown as intercrop plants in Turmeric field.</li> <li>High density sowing at a spacing of 5 cm x 10 cm may also be done.</li> </ul>
Colocassia	Leaf spot/ Leaf blight		<ul style="list-style-type: none"> <li>Apply Mancozeb @ 2 gm/ltr water at 7 days or Ridomil MZ -72 w.p. @ 2gm/ltr water 14 days interval at least twice.</li> </ul>
Cucurbits (Water-melon, pumpkin, bitter gourd, etc.)	Vegetative/harvest		<ul style="list-style-type: none"> <li>Four leaf stage, young plants may be transplanted after rain</li> <li>Avoid water stagnation in the root zone, harvest the mature ones.</li> <li>Avoid the fruits to touch the ground by staking or with the support of dried twigs.</li> </ul>
Chilli	Seed Collection/Harvest		<ul style="list-style-type: none"> <li>Seed collection should be done preferably on bright sunshine hours.</li> <li>After harvesting of matured ones spray Copper oxichloride(0.3% or Mancozeb alternatively with Metalxyl and Mancozeb combination at 15 days interval.</li> </ul>
Cow pea	Harvesting		<ul style="list-style-type: none"> <li>As keeping quality is poor green ones should be harvested at the tender stage.</li> </ul>
Passion Fruit	Flowering to fruiting	<ul style="list-style-type: none"> <li>Fruit rot</li> <li>Fruit fly</li> <li>Brown Spot</li> </ul>	<ul style="list-style-type: none"> <li>Spray Metalxyl+Mancozeb @ 2 g/ltr water at 7 days interval</li> <li>Apply poison baiting with Jaggery+ fruit juice+Malathion (20:20:1) @ 40-50 baits/ha.</li> <li>Remove the infected leaves and burn. Spray Zineb@ 2 mg/ltr water.</li> </ul>
Water mimosa (Neptunia Oleracea)	Planting and First harvest		<ul style="list-style-type: none"> <li>Maintain water at a depth of 2.5-3 ft.</li> <li>Use new slips having atleast 4-5 nodes for planting</li> <li>Maintain spacing of 3mX3m, plant 3 slips/hill-slips may be tied with a polythene rope or pegging may be done with small poles.</li> <li>Harvesting may be done after 2-2.5 month depending upon the growth and weather at 10-15 days interval.</li> <li>Seed rate: 840 steps/sangam</li> </ul>

### Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> <li>Provide only clean/wholesome drinking water only</li> <li>Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season.</li> <li>Use water sanitizer in drinking water/potassium permanganate (few grains)</li> <li>Keep the litter dry &amp; add 2 kg lime powder for 100 sq. ft. area and mix it properly.</li> </ul>
		<ul style="list-style-type: none"> <li>Coccidiosis</li> <li>Deworming</li> </ul>	<ul style="list-style-type: none"> <li>Use Amprolium @1.5g/ltr of drinking water for 5-7 days and electrolyte can be associated.</li> <li>Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
Sheep/ Goat	All age groups excepts the young ones	Care & management	<ul style="list-style-type: none"> <li>Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem</li> <li>Give multivitamins @15ml orally</li> <li>Use quality disinfectants for disinfecting the surrounding of the sheds</li> </ul>
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<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If the animals have not yet been vaccinated, give vaccine, now for Black Quarter, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, Enterotoxaemia etc.</li> </ul>
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<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Fish nurseries	Pond and water	<ul style="list-style-type: none"> <li>➤ Water depth should be maintain at 1.0-1.5m</li> <li>➤ Agri-lime should be applied in ponds</li> <li>➤ Ponds should be free from aquatic weed, predatory insects and fish.</li> <li>➤ Encircle the pond with net or bamboo mat as a preventive measure for flood.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>➤ Fish feed should be provided @ 10-15 % body weight per day.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond</li> <li>➤ Duration is 25-45 days.</li> </ul>
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	Paddy cum fish culture	water	<ul style="list-style-type: none"> <li>➤ Water depth of the field can be increase by pumping or draining if water is available to continue the culture.</li> <li>➤ 20-40% of the paddy plot can be made as 1.0-1.5m depth trenches</li> <li>➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.</li> <li>➤ Feeding should be done @ 2% body weigh5t per day.</li> </ul>

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