



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



**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Senapati (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 27 – 29 °C &amp; minimum temp. 17 - 19 °C. Relative humidity may reach upto 92% (max RH) &amp; 63% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>			
Flowering to dough and grain filling stage		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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



			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.

<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>

<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

Lakliba Nongmaijing faobada nong khara chuba yai. Phouda smut laina ngakthoknaba ishing litre 15da 5g Kocide happaga kappiyu. Kobi/ tilhou char thadokpham sembiraga leibakbu numit 10-15ni nungsada kanghanbiyu. Achouba ngada nongmada masagi arumbagi 3% gi changda amadi nga machadana 5% gi chaangda chinzak pibiyu.

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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Tamenglong (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 30 – 32 °C &amp; minimum temp. 21 - 23 °C. Relative humidity may reach upto 92% (max RH) &amp; 78% (min RH). The average wind speed may be 2 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>			
Flowering to dough and grain filling stage		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.

<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>

<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

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



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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Thoubal (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 28 – 30 °C &amp; minimum temp. 19 - 20 °C. Relative humidity may reach upto 94% (max RH) &amp; 76% (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
	Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.	
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
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<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
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<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

Lakliba Nongmaijing faobada nong khara chuba yai. Phouda smut laina ngakthoknaba ishing litre 15da 5g Kocide happaga kappiyu. Kobi/ tilhou char thadokpham sembiraga leibakbu numit 10-15ni nungsada kanghanbiyu. Achouba ngada nongmada masagi arumbagi 3% gi changda amadi nga machadana 5% gi chaangda chinzak pibiya.

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**“Gramin Krishi Mausam Seva”**





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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Ukhrul (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 27 – 29 °C &amp; minimum temp. 17 - 19 °C. Relative humidity may reach upto 94% (max RH) &amp; 76% (min RH). The average wind speed may be 0-3 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
	Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.	
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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



			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.

<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>

<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Bishnupur (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 30 – 31 °C &amp; minimum temp. 20 - 21 °C. Relative humidity may reach upto 93% (max RH) &amp; 84% (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>			
Flowering to dough and grain filling stage		Smut disease of rice	➤ Maintain water level of 5-8cm. ➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

Lakliba Nongmaijing faobada nong khara chuba yai. Phouda smut laina ngakthoknaba ishing litre 15da 5g Kocide happaga kappiyu. Kobi/ tilhou char thadokpham sembiraga leibakbu numit 10-15ni nungsada kanghanbiyu. Achouba ngada nongmada masagi arumbagi 3% gi changda amadi nga machadana 5% gi chaangda chinzak pibiyu.

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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Chandel (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 29 – 31 °C &amp; minimum temp. 20 - 22 °C. Relative humidity may reach upto 93% (max RH) &amp; 83% (min RH). The average wind speed may be 2 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>			
Flowering to dough and grain filling stage		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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



			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

Lakliba Nongmaijing faobada nong khara chuba yai. Phouda smut laina ngakthoknaba ishing litre 15da 5g Kocide happaga kappiyu. Kobi/ tilhou char thadokpham sembiraga leibakbu numit 10-15ni nungsada kanghanbiyu. Achouba ngada nongmada masagi arumbagi 3% gi changda amadi nga machadana 5% gi chaangda chinzak pibiyu.

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





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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Churachandpur (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 28 – 30 °C &amp; minimum temp. 19 - 21 °C. Relative humidity may reach upto 94% (max RH) &amp; 70% (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>			
Flowering to dough and grain filling stage		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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



			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

Lakliba Nongmaijing faobada nong khara chuba yai. Phouda smut laina ngakthoknaba ishing litre 15da 5g Kocide happaga kappiyu. Kobi/ tilhou char thadokpham sembiraga leibakbu numit 10-15ni nungsada kanghanbiyu. Achouba ngada nongmada masagi arumbagi 3% gi changda amadi nga machadana 5% gi chaangda chinzak pibiyu.

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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 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 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal East (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 28 – 30 °C &amp; minimum temp. 19 - 21 °C. Relative humidity may reach upto 92% (max RH) &amp; 72% (min RH). The average wind speed may be 0-3 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>			
Flowering to dough and grain filling stage		Smut disease of rice	➤ Maintain water level of 5-8cm. ➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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

**“Gramin Krishi Mausam Seva”**



			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

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





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**MANIPUR BULLETIN**  
**4<sup>th</sup> September, 2016**

**Imphal West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> September to 3<sup>rd</sup> October, 2016)</b>          The sky remain mainly cloudy upto 1<sup>st</sup> morning then partly cloudy to mainly clear thereafter. <b>6.6 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 31.4 to 32.7 °C, range of minimum temperature observed was 21.5 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 68.8 % respectively. The average wind speed range was 2.5 to 3.2 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal West (5<sup>th</sup> to 9<sup>th</sup> October, 2016)</b>          Likely to have heavy rainfall at isolated places from 6<sup>th</sup> to 8<sup>th</sup> October. Sky will remain partly cloudy to cloudy with maximum temp. 29 – 31 °C &amp; minimum temp. 20 - 22 °C. Relative humidity may reach upto 92% (max RH) &amp; 75% (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 9<sup>th</sup> to 11<sup>th</sup> October 2016**  
 Rain at many places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Smut disease of rice	➤ Kocide @ 5g/15lit water (spray after 2:00 pm only) to the crops in flowering stage.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
	Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.	
<b>Groundnut/ Soybean</b>	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Blackgram / rice bean</b>	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorvos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Potato</b>	Land preparation		➤ Land preparation for planting potato may be started after rains.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
<b>Cole Crops/ Onion</b>	Land preparation		➤ Land preparation for transplanting cole crops/ onion may be started. The ploughed soil need to be exposed to the sun for at least 10-15 days. This will help to minimize the soil borne fungus population.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
<b>Rabi vegetables</b>	Nursery		➤ Land preparation for Rabi vegetable should be done where proper drainage. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Sow seeds after soil drenching and seed treatment. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.



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			Removal of gunny bag as soon as the seed get sprouted is very important.
<b>Pea</b>	Land preparation to sowing		Early sowing of garden pea variety Arkel in the valley should be completed at earliest possible.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	<ul style="list-style-type: none"> <li>➤ Proper ventilation must be provided to protect excessive heat during day time.</li> <li>➤ Use water sanitizer in drinking water/potassium permanganate (few grains).</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.</li> </ul>
<b>Sheep/ Goat</b>	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 during rainy days.</li> <li>➤ Use quality disinfectants for disinfecting the surrounding of the sheds.</li> <li>➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.</li> </ul>
		Vaccination	<ul style="list-style-type: none"> <li>➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.</li> </ul>
		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. wt.</li> </ul>
<b>Pig</b>	All age groups except the young ones	Care and management	<ul style="list-style-type: none"> <li>➤ Mineral mixture be added in feed @ 10-20 g/adult animal.</li> <li>➤ Treat drinking water with potassium permanganate/ sanitizer.</li> <li>➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds</li> </ul>
		Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</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 not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> <li>➤ If the animals are afflicted by FMD, keep it in a separate enclosure.</li> <li>➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves.</li> <li>➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.</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>➤ Food supplements may be given @ 30-50 gm/animals.</li> <li>➤ After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death.</li> <li>➤ Ensure that the animal sheds remain dry during the monsoon season.</li> <li>➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.</li> <li>➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.</li> </ul>
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp/ Catfish culture</b>	Grow –out/ nurseries		<ul style="list-style-type: none"> <li>- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.</li> <li>- Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.</li> </ul>

**SMS:**

Lakliba Nongmaijing faobada nong khara chuba yai. Phouda smut laina ngakthoknaba ishing litre 15da 5g Kocide happaga kappiyu. Kobi/ tilhou char thadokpham sembiraga leibakbu numit 10-15ni nungsada kanghanbiyu. Achouba ngada nongmada masagi arumbagi 3% gi changda amadi nga machadana 5% gi chaangda chinzak pibiya.

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