



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

**MANIPUR BULLETIN****16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)**

The sky remain partly cloudy to overcast but mainly clear during morning hours of 15<sup>th</sup> Sept. **1.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.

**Weather forecast for next five days of Senapati (17<sup>th</sup> to 21<sup>st</sup> September, 2016)**

Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 27 - 29 °C & minimum temp. 18 - 20 °C. Relative humidity may reach upto 99 % (max RH) & 79 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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>

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



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



**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)**

The sky remain partly cloudy to overcast but mainly clear during morning hours of 15<sup>th</sup> Sept. **1.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.

**Weather forecast for next five days of Tamenglong (17<sup>th</sup> to 21<sup>st</sup> September, 2016)**

Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 32 - 34 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 99 % (max RH) & 75 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Care & management	➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem during rainy days. ➤ Use quality disinfectants for disinfecting the surrounding of the sheds. ➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.
		Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
<b>Pig</b>	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
<b>Cattle</b>	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	➤ Food supplements may be given @30-50 gm/animals. ➤ 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. ➤ Ensure that the animal sheds remain dry during the monsoon season. ➤ Lemon grass oil/ fly repellants can be used to keep flies away in the sheds. ➤ Make arrangements to protect animals from heavy rain/ sun/ excessive heat.

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**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)**

The sky remain partly cloudy to overcast but mainly clear during morning hours of 15<sup>th</sup> Sept. **1.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.

**Weather forecast for next five days of Thoubal (17<sup>th</sup> to 21<sup>st</sup> September, 2016)**

Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 32 - 33 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 87 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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**“Gramin Krishi Mausam Seva”**

<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>

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**“Gramin Krishi Mausam Seva”**



**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)</b> The sky remain partly cloudy to overcast but mainly clear during morning hours of 15 <sup>th</sup> Sept. <b>1.2 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.	<b>Weather forecast for next five days of Ukhrul (17<sup>th</sup> to 21<sup>st</sup> September, 2016)</b> Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 27 - 29 °C & minimum temp. 18 - 20 °C. Relative humidity may reach upto 99 % (max RH) & 81 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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>

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



**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)</b> The sky remain partly cloudy to overcast but mainly clear during morning hours of 15 <sup>th</sup> Sept. <b>1.2 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.	<b>Weather forecast for next five days of Bishnupur (17<sup>th</sup> to 21<sup>st</sup> September, 2016)</b> Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 31 - 33 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 84 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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>

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



**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)</b> The sky remain partly cloudy to overcast but mainly clear during morning hours of 15 <sup>th</sup> Sept. <b>1.2 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.	<b>Weather forecast for next five days of Chandel (17<sup>th</sup> to 21<sup>st</sup> September, 2016)</b> Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 31 - 33 °C & minimum temp. 21 - 23 °C. Relative humidity may reach upto 99 % (max RH) & 89 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed. * For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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>

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



**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)**

The sky remain partly cloudy to overcast but mainly clear during morning hours of 15<sup>th</sup> Sept. **1.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.

**Weather forecast for next five days of Churachandpur (17<sup>th</sup> to 21<sup>st</sup> September, 2016)**

Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 30 - 32 °C & minimum temp. 21 - 22 °C. Relative humidity may reach upto 100 % (max RH) & 85 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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>

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



**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)**

The sky remain partly cloudy to overcast but mainly clear during morning hours of 15<sup>th</sup> Sept. **1.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.

**Weather forecast for next five days of Imphal East (17<sup>th</sup> to 21<sup>st</sup> September, 2016)**

Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 32 - 33 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 83 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Case worm, leaf folder, whorl maggot	➤ Lambdacythothrin @ 15ml/ 15 litre of water (at least 5-6 pumps per sangam) after rain.
		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
<b>Pre-kharif rice seeds</b>			➤ 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>			
* To prevent damping off diseases, soil treatment of nursery bed for vegetables must be done with Carbendazim@ 3g/15 lit water must be done. Also seed treatment may be done using Dithane M-45/ Thiram/ Captan @ 2g/kg seed.			
* For nurseries, dip root in Carbendazim @ 10g/ 5 lit water for 30 min before transplanting.			
<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Shoot borer/ soft rot	- Spray Dichlorovos @ 0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. Pruning of freshly infested shoots may also be done. - Avoid water logging. Drain out excess water from the field.
		Leaf blotch & Leaf Spot	- Spray <i>Mancozeb</i> @ 2 g/ lit of water at 10 to 15 days interval depending upon the severity of incidence.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<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>

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**MANIPUR BULLETIN**

**16<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 17<sup>th</sup> to 21<sup>st</sup> September, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (13<sup>th</sup> to 15<sup>th</sup> September, 2016)</b> The sky remain partly cloudy to overcast but mainly clear during morning hours of 15 <sup>th</sup> Sept. <b>1.2 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 28.9 to 32.1 °C, range of minimum temperature observed was 21.5 to 22.8 °C, mean relative humidity observed in morning and afternoon were 87.0 % and 65.33 % respectively. The average wind speed range was 2.7 to 4.4 km/hr.	<b>Weather forecast for next five days of Imphal West (17<sup>th</sup> to 21<sup>st</sup> September, 2016)</b> Likely to have light rainfall upto Wednesday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 31 - 33 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 77 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be North Westerly upto Monday then Easterly thereafter.
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Flowering		- Maintain water level of 5-8cm.
		Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
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		Sheath blight/ sheath rot	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Stem Borer/ Gall midge/Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
<b>Soybean/ Groundnut</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	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
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<b>Rabi vegetables</b>	Nursery		- Raising nurseries of rabi vegetables. - Regular monitoring for insect pest infestation and water logging in and around the nursery plot may be done to ensure healthy seedlings for transplanting.
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<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties of French bean – Pant Anupam, Anupam may be planted at a spacing of 30cm x 45cm and Tangkhul Hawaii (local) at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm and for pea Arkel or Azad may be planted at a spacing of 10 cm x 30cm.

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**“Gramin Krishi Mausam Seva”**

<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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