

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”****MANIPUR BULLETIN****15<sup>th</sup> December, 2017****Bishnupur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Bishnupur (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 22 - 23 °C & minimum temp. 9 - 11 °C and relative humidity may reach up to 82 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with potato or pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato/ Potato</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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



<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albendazole @7.5 mg/kg b.wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against FMD.</li> </ul>
		<ul style="list-style-type: none"> <li>• Skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• Sprayer of Anti-<i>Psoroptic</i> may be used</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
		<ul style="list-style-type: none"> <li>• Deworming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.</li> </ul>
		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
		Feeding	<ul style="list-style-type: none"> <li>- Feeds should be provided 2 times a day.</li> </ul>

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



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

**MANIPUR BULLETIN****15<sup>th</sup> December, 2017**Chandel

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Chandel (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 20 - 21 °C & minimum temp. 8 - 9 °C and relative humidity may reach up to 85 % (max RH) & 54 % (min RH). The average wind speed may be 3 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with potato or pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>

**Horticulture Crops**

\* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato/ Potato</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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<i>Animal Sciences</i>			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Management	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
		• Vaccination	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
		• Vaccination	• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
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		Mastitis	• Adequate care must be ensured for prevention of mastitis for the milch animals.
• Fodder cultivation: Oat crop may be sown immediately.			
<b>Fishery:</b>			
Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	- As per market demand harvesting may be started.
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**Weather forecast for next five days of Churachandpur (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 22 - 23 °C & minimum temp. 9 - 11 °C and relative humidity may reach up to 82 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/hr.

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<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
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<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
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<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
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<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
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		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
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<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
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**MANIPUR BULLETIN****15<sup>th</sup> December, 2017**Imphal East

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**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Imphal East (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 22 - 23 °C & minimum temp. 9 - 11 °C and relative humidity may reach up to 82 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with potato or pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato/ Potato</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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



<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albendazole @7.5 mg/kg b.wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against FMD.</li> </ul>
		<ul style="list-style-type: none"> <li>• Skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• Sprayer of Anti-<i>Psoroptic</i> may be used</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
		<ul style="list-style-type: none"> <li>• Deworming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.</li> </ul>
		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
		Feeding	<ul style="list-style-type: none"> <li>- Feeds should be provided 2 times a day.</li> </ul>

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 Scientist i/c, GKMS





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

**MANIPUR BULLETIN****15<sup>th</sup> December, 2017**Imphal West

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Imphal West (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 22 - 23 °C & minimum temp. 9 - 11 °C and relative humidity may reach up to 82 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with potato or pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato/ Potato</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albendazole @7.5 mg/kg b.wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against FMD.</li> </ul>
		<ul style="list-style-type: none"> <li>• Skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• Sprayer of Anti-<i>Psoroptic</i> may be used</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
		<ul style="list-style-type: none"> <li>• Deworming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.</li> </ul>
		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
		Feeding	<ul style="list-style-type: none"> <li>- Feeds should be provided 2 times a day.</li> </ul>

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****15<sup>th</sup> December, 2017**Senapati

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Senapati (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 18 - 19 °C & minimum temp. 7 - 8 °C and relative humidity may reach up to 70 % (max RH) & 42 % (min RH). The average wind speed may be 3 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albendazole @7.5 mg/kg b.wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against FMD.</li> </ul>
		<ul style="list-style-type: none"> <li>• Skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• Sprayer of Anti-<i>Psoroptic</i> may be used</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
		<ul style="list-style-type: none"> <li>• Deworming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.</li> </ul>
		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
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 Scientist i/c, GKMS



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

**MANIPUR BULLETIN****15<sup>th</sup> December, 2017**Tamenglong

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Tamenglong (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 19 - 20 °C & minimum temp. 8 - 9 °C and relative humidity may reach up to 72 % (max RH) & 43 % (min RH). The average wind speed may be 4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with potato or pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>

**Horticulture Crops**

\* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato/ Potato</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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



<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albendazole @7.5 mg/kg b.wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against FMD.</li> </ul>
		<ul style="list-style-type: none"> <li>• Skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• Sprayer of Anti-<i>Psoroptic</i> may be used</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
		<ul style="list-style-type: none"> <li>• Deworming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.</li> </ul>
		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
		Feeding	<ul style="list-style-type: none"> <li>- Feeds should be provided 2 times a day.</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****15<sup>th</sup> December, 2017**Thoubal

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (12<sup>th</sup> to 14<sup>th</sup> December, 2017)**

Observed partly cloudy to overcast sky and foggy morning hours during past three days with **11.5 mm** rainfall. Maximum temperature range of 21.2 to 23.7 °C and minimum temperature range of 12.0 to 18.3 °C with mean relative humidity 94.7 % max and 65.0 % min was recorded in the past three days.

**Weather forecast for next five days of Thoubal (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 22 - 23 °C & minimum temp. 9 - 11 °C and relative humidity may reach up to 82 % (max RH) & 50 % (min RH). The average wind speed may be 2-4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with potato or pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato/ Potato</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
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<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
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		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
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**MANIPUR BULLETIN****15<sup>th</sup> December, 2017**Ukhrul

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 16<sup>th</sup> to 20<sup>th</sup> December, 2017 as below:

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**Weather forecast for next five days of Ukhrul (16<sup>th</sup> to 20<sup>th</sup> December, 2017)**

Likely to have no rains upto Wednesday. Morning hours is likely to have dense to very dense fog and sky may remain mainly clear during afternoon hours. The maximum temp. 18 - 20 °C & minimum temp. 7 - 9 °C and relative humidity may reach up to 72 % (max RH) & 43 % (min RH). The average wind speed may be 4 km/hr.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rapeseed/ Mustard/ Lentil/ Blackgram (late variety)/ Field Pea</b>	Vegetative		<ul style="list-style-type: none"> <li>- Thinning may be done where plant population is high.</li> <li>- Drain out excess water that had been accumulated due to rains during past few days.</li> <li>- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.</li> <li>- For organic control against aphid, sprays that consist of Azadirachtin, neem oil or Pyrethrin may be used.</li> </ul>
<b>Rabi Maize</b>	Land preparation to sowing		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started when the soil moisture is favourable for land preparation.</li> <li>- Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<p>For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required.</p> <p>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</p>
<b>Horticulture Crops</b>			
* Drain out excess water that had been accumulated due to rains during past few days. Regular monitoring may be done for insect pest infestation.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Tree bean</b>	Pre-bearing/ bearing trees		<ul style="list-style-type: none"> <li>- Apply Carbendazim @ 2g/ lit water in the surrounding soil to a depth of 1 ft. to prevent Verticillium wilt.</li> <li>- 20g Carbofuran 3G/ plant may also be in-corporated in soil as prophylactic measure against bark borer/ termites.</li> </ul>
<b>Cabbage/ Cauliflower</b>	Vegetative	Aphid	- If Infestation of aphid is less, drench the plant with strong sprays of water to remove aphid/ or remove infected plant part. But if the infestation is severe, spray evenly insecticidal soap or neem oil.
		leaf eating caterpillar	- Spray Flubendiamide (Fame) @ 2ml/ 10 lit of water.
<b>Cauliflower</b>	Curd initiation stage		<ul style="list-style-type: none"> <li>- If <b>Whip tail</b> is observed in cauliflower, spray Borax @ 3g/ lit of water or spray Tracel (micronutrient @ 5 g/ lit of water) in addition to recommended dose of fertilizer.</li> <li>- At this stage 4 kg DAP + 4 kg K<sub>2</sub>O for 2000 plants may be applied.</li> </ul>
<b>Coriander/ Onion/ Garlic</b>	Vegetative		- Avoid water logging in and around the crop field



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<i>Animal Sciences</i>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	<ul style="list-style-type: none"> <li>• Management</li> </ul>	<ul style="list-style-type: none"> <li>• Protect animals/ birds from sudden drop in temperature. Cover the wall with hessian cloth/ polythene sheet during night time.</li> <li>• Litter must be stirred frequently and aired every day.</li> </ul>
<b>Sheep/ Goat</b>	All age groups	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• If the animals have not been vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. this must be done during this month.</li> <li>• Take adequate care to prevent occurrence of Mastitis.</li> <li>• PPR immunization must be done once in every three years.</li> </ul>
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		<ul style="list-style-type: none"> <li>• Shearing for wool</li> </ul>	<ul style="list-style-type: none"> <li>• Sheep should be sheared during this month.</li> </ul>
<b>Pig</b>	All age groups except the young ones	<ul style="list-style-type: none"> <li>• Coccidial infection</li> </ul>	<ul style="list-style-type: none"> <li>• Ofloxacin/ Ornidazole (O<sub>2</sub>) tab twice daily for 5 days.</li> </ul>
		<ul style="list-style-type: none"> <li>• De-worming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albendazole @7.5 mg/kg b.wt.</li> </ul>
		<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against FMD.</li> </ul>
		<ul style="list-style-type: none"> <li>• Skin disease</li> </ul>	<ul style="list-style-type: none"> <li>• Sprayer of Anti-<i>Psoroptic</i> may be used</li> </ul>
<b>Cattle</b>	All age groups excepts the young ones	<ul style="list-style-type: none"> <li>• Vaccination</li> </ul>	<ul style="list-style-type: none"> <li>• Vaccinate against B.Q., F.M.D. &amp; H.S. if not yet vaccinated.</li> <li>• Cases of H.S. may be encountered during this period</li> <li>• Immediate treatment using appropriate drugs with the help of Consultant must be advocated to safe the animals.</li> </ul>
		<ul style="list-style-type: none"> <li>• Deworming</li> </ul>	<ul style="list-style-type: none"> <li>• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.</li> </ul>
		<ul style="list-style-type: none"> <li>• Care &amp; Management</li> </ul>	<ul style="list-style-type: none"> <li>• Mixture of mineral/ salts should be added in the feed.</li> <li>• Avoid the cattle from chiting/biting by Flies</li> <li>• Adopt tick control measures</li> </ul>
		<ul style="list-style-type: none"> <li>Mastitis</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate care must be ensured for prevention of mastitis for the milch animals.</li> </ul>
<ul style="list-style-type: none"> <li>• Fodder cultivation: Oat crop may be sown immediately.</li> </ul>			
<b>Fishery:</b>			
<b>Type of Farming</b>	<b>Stage</b>	<b>Management</b>	<b>Agro-metrological advisories</b>
<b>Carp culture</b>	Grow-out	Pond water	<ul style="list-style-type: none"> <li>- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m.</li> <li>- Replace half of pond water with fresh &amp; clean water at every 25-30 days interval.</li> <li>- Minimum feed must be provided, i.e., @ 1-2% of body weight per day.</li> </ul>
		Harvest	<ul style="list-style-type: none"> <li>- As per market demand harvesting may be started.</li> </ul>
		Feeding	<ul style="list-style-type: none"> <li>- Feeds should be provided 2 times a day.</li> </ul>

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