



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

**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 °C and minimum temperature range of 11.6 to 13.9 °C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Bishnupur (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 24 - 25 °C & minimum temp. 10 - 11 °C and relative humidity may reach up to 78 % (max RH) & 47 % (min RH). The average wind speed may be 2-4 km/hr.

<i>Field Crops</i>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Rapeseed/ Mustard</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m <sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m <sup>2</sup> .
<b>Onion</b>	Transplanting to early vegetative		- Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. - Give light watering during morning and evening hours for 7-10 days after



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			transplanting till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
<b>Potato</b>	Tuber seed treatment and sowing		- Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing.

**Animal Sciences**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<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>

• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

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



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**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 ° C and minimum temperature range of 11.6 to 13.9 ° C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Chandel (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 23 - 24 ° C & minimum temp. 8 - 9 ° C and relative humidity may reach up to 80 % (max RH) & 55 % (min RH). The average wind speed may be 2-3 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</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m <sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m <sup>2</sup> .
<b>Onion</b>	Transplanting to early vegetative		- Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. - Give light watering during morning and evening hours for 7-10 days after



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			transplanting till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
<b>Potato</b>	Tuber seed treatment and sowing		- Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing.

**Animal Sciences**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<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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• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
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**MANIPUR BULLETIN**

**28<sup>th</sup> November, 2017**

Churachandpur

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<i>Field Crops</i>			
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***Horticulture Crops***

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<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		<ul style="list-style-type: none"> <li>- Transplant 25-30 days old seedlings (4 leaves stage).</li> <li>- Monitor regularly for insect/ pest infestation.</li> </ul>
<b>Coriander</b>	Land preparation & sowing		<ul style="list-style-type: none"> <li>- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects.</li> <li>- Apply 200-250 kg of FYM (@ ½ cart load) in 100 m<sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m<sup>2</sup>.</li> </ul>
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**Animal Sciences**

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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>
		<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>

• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

(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****28<sup>th</sup> November, 2017**Imphal East

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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 ° C and minimum temperature range of 11.6 to 13.9 ° C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Imphal East (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 23 - 24 ° C & minimum temp. 8 - 9 ° C and relative humidity may reach up to 85 % (max RH) & 40 % (min RH). The average wind speed may be 3-4 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</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m <sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m <sup>2</sup> .
<b>Onion</b>	Transplanting to early vegetative		- Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. - Give light watering during morning and evening hours for 7-10 days after



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



			transplanting till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
<b>Potato</b>	Tuber seed treatment and sowing		- Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing.

**Animal Sciences**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<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>

• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

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





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

**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 ° C and minimum temperature range of 11.6 to 13.9 ° C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Imphal West (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 23 - 24 ° C & minimum temp. 8 - 9 ° C and relative humidity may reach up to 85 % (max RH) & 40 % (min RH). The average wind speed may be 3-4 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</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m <sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m <sup>2</sup> .
<b>Onion</b>	Transplanting to early vegetative		- Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. - Give light watering during morning and evening hours for 7-10 days after



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			transplanting till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
<b>Potato</b>	Tuber seed treatment and sowing		- Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing.

**Animal Sciences**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<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>

• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

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



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

**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)</b></p> <p>Observed fair to partly cloudy sky during past four days with <b>no</b> rainfall. Maximum temperature range of 24.7 to 26.5 ° C and minimum temperature range of 11.6 to 13.9 ° C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Senapati (25<sup>th</sup> to 29<sup>th</sup> November, 2017)</b></p> <p>Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 20 - 21 ° C &amp; minimum temp. 7 – 8 ° C and relative humidity may reach up to 78 % (max RH) &amp; 36 % (min RH). The average wind speed may be 3-4 km/hr.</p>
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<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</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet.</li> <li>- Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing.</li> <li>- Recommended variety – M-27. Seed rate is 10-12 kg/ ha.</li> <li>- Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage.</li> <li>- Thinning may be done where plant population is high.</li> </ul>
<b>Rabi Maize</b>	Land preparation		<ul style="list-style-type: none"> <li>- Land preparation for sowing rabi maize may be started.</li> </ul>
<b>Field Pea</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare.</li> <li>Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.</li> </ul>
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		<ul style="list-style-type: none"> <li>Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination.</li> <li>Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.</li> </ul>
<b>Seeds storage</b>	Post harvest management		<ul style="list-style-type: none"> <li>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.</li> <li>For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.</li> </ul>

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		<ul style="list-style-type: none"> <li>As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.</li> </ul>
<b>Ginger</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.</li> </ul>
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		<ul style="list-style-type: none"> <li>- Transplant 25-30 days old seedlings (4 leaves stage).</li> <li>- Monitor regularly for insect/ pest infestation.</li> </ul>
<b>Garlic</b>	Planting to early vegetative		<ul style="list-style-type: none"> <li>- Garlic bulbets may be planted in prepared beds.</li> <li>- Give light irrigation during morning and evening hours to keep soil moist.</li> </ul>



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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	• Administer Oflaxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
<b>Pig</b>	All age groups except the young ones	• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
		• Vaccination	<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>
<b>Cattle</b>	All age groups excepts the young ones	• Deworming	• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	<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>
		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.
		Feeding	- Feeds should be provided 2 times a day.

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



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

**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 °C and minimum temperature range of 11.6 to 13.9 °C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Tamenglong (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 24 - 25 °C & minimum temp. 10 - 11 °C and relative humidity may reach up to 78 % (max RH) & 47 % (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</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m <sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m <sup>2</sup> .
<b>Onion</b>	Transplanting to early vegetative		- Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. - Give light watering during morning and evening hours for 7-10 days after



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			transplanting till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
<b>Potato</b>	Tuber seed treatment and sowing		- Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing.

**Animal Sciences**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<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>

• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 °C and minimum temperature range of 11.6 to 13.9 °C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Thoubal (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 24 - 25 °C & minimum temp. 10 - 11 °C and relative humidity may reach up to 78 % (max RH) & 47 % (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</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Avoid water logging area. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 m <sup>2</sup> and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 m <sup>2</sup> .
<b>Onion</b>	Transplanting to early vegetative		- Only 45-60 days old seedlings may be transplanted. Plant it at the spacing 10cm x 20cm. Too deep planting is not recommended. - Give light watering during morning and evening hours for 7-10 days after



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			transplanting till the seedlings are established. - Thinning of nursery may be followed if there is shortage of land and manpower for transplanting.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.
<b>Potato</b>	Tuber seed treatment and sowing		- Prepare raised beds. Soil must be made to fine tilt and sowing may be done at a spacing of 55-60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. - Treat seed tubers with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water for 20 minutes and dry in shed before planting as preventive measure against soil borne diseases before sowing. Sow seed at about 3 inch depth. Cover the seed with soil to a depth 1-1½ inches after sowing.

**Animal Sciences**

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<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>

• Fodder cultivation: Oat crop may be sown immediately.

**Fishery:**

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Grow-out	Pond water	- Lime/ Aqua magic should be applied regularly to keep good quality pond water. Water depth should be maintained at 1.0-1.5m. - Replace half of pond water with fresh & clean water at every 25-30 days interval. - Minimum feed must be provided, i.e., @ 1-2% of body weight per day.
		Harvest	- As per market demand harvesting may be started.
		Feeding	- Feeds should be provided 2 times a day.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****28<sup>th</sup> November, 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 29<sup>th</sup> November to 3<sup>rd</sup> December, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (24<sup>th</sup> to 27<sup>th</sup> November, 2017)**

Observed fair to partly cloudy sky during past four days with **no** rainfall. Maximum temperature range of 24.7 to 26.5 °C and minimum temperature range of 11.6 to 13.9 °C with mean relative humidity 90.3 % max and 51 % min was recorded in the past four days.

**Weather forecast for next five days of Ukhrul (25<sup>th</sup> to 29<sup>th</sup> November, 2017)**

Likely to have no rains upto Sunday and moderate to dense fog during morning hours of 29<sup>th</sup> Nov. Sky may remain mainly clear to partly cloudy. The maximum temp. 21 - 22 °C & minimum temp. 8 - 9 °C and relative humidity may reach up to 86 % (max RH) & 50 % (min RH). The average wind speed may be 3-4 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</b>	Sowing to early vegetative		- Zero tillage rapeseed/ mustard may be sown at 30 cm row spacing when the field is slightly wet. - Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose before sowing. - Recommended variety – M-27. Seed rate is 10-12 kg/ ha. - Treat seeds with Mancozeb @2g/kg seed and dry for 30 mins in the shade then sow for the control of white rust and Downey Mildew at seedling stage. - Thinning may be done where plant population is high.
<b>Rabi Maize</b>	Land preparation		- Land preparation for sowing rabi maize may be started.
<b>Field Pea</b>	Sowing to early vegetative		Sowing may be done at a spacing of 30cm X 10-15cm. Recommended variety - Rachana. Seed rate is 75 kg/ hectare. Treat the seeds with Bavistin @ 2.5 mg/ lit of water followed by Rhizobium culture @ 20g/kg of seeds before sowing.
<b>Lentil/ Blackgram (late variety)</b>	Sowing to early vegetative		Lentil/ Blackgram (late var.) may be sown 15 days before harvesting rice as relay crop in the crop fields where the soil moisture is optimum for seed germination. Treat the seeds with Carbendazim @ 2g/kg seed and dry for 30 mins in the shade then sow it.
<b>Seeds storage</b>	Post harvest management		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. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.

**Horticulture Crops**

- \* Light watering during morning hours is advised for the rabi crops (especially in vegetative stages) to avoid effects of frost/ fog on crops.
- \* Incorporate Tricoderma harzianum @ 5-6 kg/ sangam at the time of final land preparation (about 4-5 days ahead of sowing/ transplanting).
- \* In fruit crops and perennial vegetables like sweet potato, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.

<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Mango</b>	Bearing trees		As the winter is approaching, pruning of dead twigs and branches are very essential followed by manuring and mulching. For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
<b>Ginger</b>	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
<b>Cabbage/ Cauliflower/ Tomato</b>	Transplanting to early vegetative		- Transplant 25-30 days old seedlings (4 leaves stage). - Monitor regularly for insect/ pest infestation.
<b>Garlic</b>	Planting to early vegetative		- Garlic bulblets may be planted in prepared beds. - Give light irrigation during morning and evening hours to keep soil moist.



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<b>Animal Sciences</b>			
<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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