



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



**MANIPUR BULLETIN**

**7<sup>th</sup> March, 2017**

**Churachandpur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)</b> Observed mainly clear sky and <b>0.5 mm</b> rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.	<b>Weather forecast for next five days of Churachandpur (8<sup>th</sup> to 12<sup>th</sup> March, 2017)</b> Likely to have heavy rainfall at isolated places from 11 <sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 22 – 27 °C & minimum temp. 12 - 15 °C. Relative humidity may reach up to 99 % (max RH) & 75 % (min RH). The average wind speed may be 3-6 km/hr. Wind direction may be South Easterly during next five days.
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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>Pre-Kharif rice</b>	Nursery to transplanting		- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - Transplant the seedling at 20-25 days after sowing. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.
<b>Pulses</b>	Maturity to harvesting		- Harvest mature pods before rains and dry under shed to protect from rains.
<b>Rabi maize</b>	Vegetative	Stem borer	- Apply irrigation at an interval of 10-15 days to maintain moisture status. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<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 seeds. - After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
<b>French Bean</b>	Sowing		- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		- Go for nursery rising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout. - Light watering during morning hours may be done. - Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started. - Collect good quality planting material from known source.
<b>Bhindi</b>	Sowing		For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani
<b>Chilli/ capsicum</b>	Nursery to early vegetative		In chilies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack. - Transplant nursery in raised beds. - Give light watering to keep soil moist during vegetative phase.

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

<b>Tomato/ Brinjal</b>	Transplanting to vegetative		<ul style="list-style-type: none"> <li>- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt.</li> <li>- Apply 75:30:60 kg of NPK/ ha at the time of transplanting.</li> <li>- A light irrigation should be given just after transplanting</li> </ul>
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	<ul style="list-style-type: none"> <li>- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.</li> </ul>
<b>Onion/ Garlic</b>	Bulb formation		<ul style="list-style-type: none"> <li>- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.</li> </ul>

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. <ol style="list-style-type: none"> <li>1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>2. R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.</li> </ul>
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	<ul style="list-style-type: none"> <li>➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.</li> </ul>
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</li> </ul>
		B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> </ul>
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

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



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



**MANIPUR BULLETIN**

**7<sup>th</sup> March, 2017**

**Senapati**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)**

Observed mainly clear sky and **0.5 mm** rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.

**Weather forecast for next five days of Senapati (8<sup>th</sup> to 12<sup>th</sup> March, 2017)**

Likely to have heavy rainfall at isolated places from 11<sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 22 – 27 °C & minimum temp. 10 - 14 °C. Relative humidity may reach up to 97 % (max RH) & 58 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be South Easterly to Westerly during next five days.

<b>Field Crops</b>			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Pre-Kharif rice</b>	Nursery to transplanting		<ul style="list-style-type: none"> <li>- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts.</li> <li>- Transplant the seedling at 20-25 days after sowing.</li> <li>- Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.</li> </ul>
<b>Pulses</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Harvest mature pods before rains and dry under shed to protect from rains.</li> </ul>
<b>Rabi maize</b>	Vegetative	Stem borer	<ul style="list-style-type: none"> <li>- Apply irrigation at an interval of 10-15 days to maintain moisture status.</li> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</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 seeds.</li> <li>- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b>.</li> </ul>
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	<ul style="list-style-type: none"> <li>- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.</li> </ul>
<b>French Bean</b>	Sowing		<ul style="list-style-type: none"> <li>- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed &amp; row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill.</li> <li>- Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.</li> </ul>
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		<ul style="list-style-type: none"> <li>- Go for nursery rising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout.</li> <li>- Light watering during morning hours may be done.</li> <li>- Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.</li> </ul>
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		<ul style="list-style-type: none"> <li>- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started.</li> <li>- Collect good quality planting material from known source.</li> </ul>
<b>Bhindi</b>	Sowing		<p>For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani</p>
<b>Chilli/ capsicum</b>	Nursery to early vegetative		<p>In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack.</p> <ul style="list-style-type: none"> <li>- Transplant nursery in raised beds.</li> <li>- Give light watering to keep soil moist during vegetative phase.</li> </ul>

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<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	<ul style="list-style-type: none"> <li>- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.</li> </ul>
<b>Onion/ Garlic</b>	Bulb formation		<ul style="list-style-type: none"> <li>- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.</li> </ul>

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. <ol style="list-style-type: none"> <li>1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>2. R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.</li> </ul>
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	<ul style="list-style-type: none"> <li>➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.</li> </ul>
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****7<sup>th</sup> March, 2017****Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

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**Weather forecast for next five days of Tamenglong (8<sup>th</sup> to 12<sup>th</sup> March, 2017)**

Likely to have heavy rainfall at isolated places from 11<sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 28 °C & minimum temp. 10 - 14 °C. Relative humidity may reach up to 99 % (max RH) & 75 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be Easterly to South Easterly during next five days.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Pre-Kharif rice</b>	Nursery to transplanting		<ul style="list-style-type: none"> <li>- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts.</li> <li>- Transplant the seedling at 20-25 days after sowing.</li> <li>- Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.</li> </ul>
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<b>Rabi maize</b>	Vegetative	Stem borer	<ul style="list-style-type: none"> <li>- Apply irrigation at an interval of 10-15 days to maintain moisture status.</li> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</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 seeds.</li> <li>- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b>.</li> </ul>
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* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
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**Animal Sciences**

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<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
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<b>Pig</b>	All age groups except the young ones	De-worming	<ul style="list-style-type: none"> <li>➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.</li> </ul>
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<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</li> </ul>
		B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> </ul>
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

(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****7<sup>th</sup> March, 2017****Thoubal**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)**

Observed mainly clear sky and **0.5 mm** rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.

**Weather forecast for next five days of Thoubal (8<sup>th</sup> to 12<sup>th</sup> March, 2017)**

Likely to have heavy rainfall at isolated places from 11<sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 28 °C & minimum temp. 13 – 16 °C. Relative humidity may reach up to 98 % (max RH) & 61 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Easterly to South Westerly during next five days.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Pre-Kharif rice</b>	Nursery to transplanting		<ul style="list-style-type: none"> <li>- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts.</li> <li>- Transplant the seedling at 20-25 days after sowing.</li> <li>- Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.</li> </ul>
<b>Pulses</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Harvest mature pods before rains and dry under shed to protect from rains.</li> </ul>
<b>Rabi maize</b>	Vegetative	Stem borer	<ul style="list-style-type: none"> <li>- Apply irrigation at an interval of 10-15 days to maintain moisture status.</li> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</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 seeds.</li> <li>- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b>.</li> </ul>
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	<ul style="list-style-type: none"> <li>- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.</li> </ul>
<b>French Bean</b>	Sowing		<ul style="list-style-type: none"> <li>- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed &amp; row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill.</li> <li>- Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.</li> </ul>
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		<ul style="list-style-type: none"> <li>- Go for nursery rising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout.</li> <li>- Light watering during morning hours may be done.</li> <li>- Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.</li> </ul>
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		<ul style="list-style-type: none"> <li>- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started.</li> <li>- Collect good quality planting material from known source.</li> </ul>
<b>Bhindi</b>	Sowing		<p>For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani</p>
<b>Chilli/ capsicum</b>	Nursery to early vegetative		<p>In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack.</p> <ul style="list-style-type: none"> <li>- Transplant nursery in raised beds.</li> <li>- Give light watering to keep soil moist during vegetative phase.</li> </ul>

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

<b>Tomato/ Brinjal</b>	Transplanting to vegetative		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt. - Apply 75:30:60 kg of NPK/ ha at the time of transplanting. - A light irrigation should be given just after transplanting
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion/ Garlic</b>	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

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



**MANIPUR BULLETIN**

**7<sup>th</sup> March, 2017**

**Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)**

Observed mainly clear sky and **0.5 mm** rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.

**Weather forecast for next five days of Ukhrul (8<sup>th</sup> to 12<sup>th</sup> March, 2017)**

Likely to have heavy rainfall at isolated places from 11<sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 27 °C & minimum temp. 10 - 13 °C. Relative humidity may reach up to 98 % (max RH) & 49 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Easterly to Westerly during next five days.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Pre-Kharif rice</b>	Nursery to transplanting		<ul style="list-style-type: none"> <li>- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts.</li> <li>- Transplant the seedling at 20-25 days after sowing.</li> <li>- Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.</li> </ul>
<b>Pulses</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Harvest mature pods before rains and dry under shed to protect from rains.</li> </ul>
<b>Rabi maize</b>	Vegetative	Stem borer	<ul style="list-style-type: none"> <li>- Apply irrigation at an interval of 10-15 days to maintain moisture status.</li> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</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 seeds.</li> <li>- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b>.</li> </ul>
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	<ul style="list-style-type: none"> <li>- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.</li> </ul>
<b>French Bean</b>	Sowing		<ul style="list-style-type: none"> <li>- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed &amp; row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill.</li> <li>- Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.</li> </ul>
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		<ul style="list-style-type: none"> <li>- Go for nursery rising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout.</li> <li>- Light watering during morning hours may be done.</li> <li>- Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.</li> </ul>
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		<ul style="list-style-type: none"> <li>- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started.</li> <li>- Collect good quality planting material from known source.</li> </ul>
<b>Bhindi</b>	Sowing		<p>For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani</p>
<b>Chilli/ capsicum</b>	Nursery to early vegetative		<p>In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack.</p> <ul style="list-style-type: none"> <li>- Transplant nursery in raised beds.</li> <li>- Give light watering to keep soil moist during vegetative phase.</li> </ul>

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

<b>Tomato/ Brinjal</b>	Transplanting to vegetative		<ul style="list-style-type: none"> <li>- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt.</li> <li>- Apply 75:30:60 kg of NPK/ ha at the time of transplanting.</li> <li>- A light irrigation should be given just after transplanting</li> </ul>
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	<ul style="list-style-type: none"> <li>- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.</li> </ul>
<b>Onion/ Garlic</b>	Bulb formation		<ul style="list-style-type: none"> <li>- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.</li> </ul>

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. <ol style="list-style-type: none"> <li>1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>2. R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.</li> </ul>
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	<ul style="list-style-type: none"> <li>➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.</li> </ul>
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</li> </ul>
		B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> </ul>
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

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



**MANIPUR BULLETIN**

**7<sup>th</sup> March, 2017**

**Imphal East**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)</b> Observed mainly clear sky and <b>0.5 mm</b> rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.	<b>Weather forecast for next five days of Imphal East (8<sup>th</sup> to 12<sup>th</sup> March, 2017)</b> Likely to have heavy rainfall at isolated places from 11 <sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 27 °C & minimum temp. 11 - 15 °C. Relative humidity may reach up to 98 % (max RH) & 60 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly to South Westerly during next five days.
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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>Pre-Kharif rice</b>	Nursery to transplanting		- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - Transplant the seedling at 20-25 days after sowing. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.
<b>Pulses</b>	Maturity to harvesting		- Harvest mature pods before rains and dry under shed to protect from rains.
<b>Rabi maize</b>	Vegetative	Stem borer	- Apply irrigation at an interval of 10-15 days to maintain moisture status. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<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 seeds. - After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
<b>French Bean</b>	Sowing		- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		- Go for nursery rising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout. - Light watering during morning hours may be done. - Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started. - Collect good quality planting material from known source.
<b>Bhindi</b>	Sowing		For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani
<b>Chilli/ capsicum</b>	Nursery to early vegetative		In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack. - Transplant nursery in raised beds. - Give light watering to keep soil moist during vegetative phase.

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

<b>Tomato/ Brinjal</b>	Transplanting to vegetative		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt. - Apply 75:30:60 kg of NPK/ ha at the time of transplanting. - A light irrigation should be given just after transplanting
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion/ Garlic</b>	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

(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****7<sup>th</sup> March, 2017****Imphal West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)**

Observed mainly clear sky and **0.5 mm** rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.

**Weather forecast for next five days of Imphal West (8<sup>th</sup> to 12<sup>th</sup> March, 2017)**

Likely to have heavy rainfall at isolated places from 11<sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 27 °C & minimum temp. 10 – 13 °C. Relative humidity may reach up to 98 % (max RH) & 68 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly to South Westerly during next five days.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Pre-Kharif rice</b>	Nursery to transplanting		<ul style="list-style-type: none"> <li>- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts.</li> <li>- Transplant the seedling at 20-25 days after sowing.</li> <li>- Before first ploughing of main field, apply well decomposed FYM @ 10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.</li> </ul>
<b>Pulses</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Harvest mature pods before rains and dry under shed to protect from rains.</li> </ul>
<b>Rabi maize</b>	Vegetative	Stem borer	<ul style="list-style-type: none"> <li>- Apply irrigation at an interval of 10-15 days to maintain moisture status.</li> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</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 seeds.</li> <li>- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b>.</li> </ul>
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	<ul style="list-style-type: none"> <li>- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.</li> </ul>
<b>French Bean</b>	Sowing		<ul style="list-style-type: none"> <li>- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed &amp; row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill.</li> <li>- Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.</li> </ul>
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		<ul style="list-style-type: none"> <li>- Go for nursery raising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout.</li> <li>- Light watering during morning hours may be done.</li> <li>- Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.</li> </ul>
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		<ul style="list-style-type: none"> <li>- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started.</li> <li>- Collect good quality planting material from known source.</li> </ul>
<b>Bhindi</b>	Sowing		For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani
<b>Chilli/ capsicum</b>	Nursery to early vegetative		<ul style="list-style-type: none"> <li>In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack.</li> <li>- Transplant nursery in raised beds.</li> <li>- Give light watering to keep soil moist during vegetative phase.</li> </ul>



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

<b>Tomato/ Brinjal</b>	Transplanting to vegetative		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt. - Apply 75:30:60 kg of NPK/ ha at the time of transplanting. - A light irrigation should be given just after transplanting
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion/ Garlic</b>	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

(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****7<sup>th</sup> March, 2017****Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)**

Observed mainly clear sky and **0.5 mm** rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.

**Weather forecast for next five days of Bishnupur (8<sup>th</sup> to 12<sup>th</sup> March, 2017)**

Likely to have heavy rainfall at isolated places from 11<sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 28 °C & minimum temp. 12 - 17 °C. Relative humidity may reach up to 99 % (max RH) & 67 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South Easterly to South Westerly during next five days.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Pre-Kharif rice</b>	Nursery to transplanting		<ul style="list-style-type: none"> <li>- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts.</li> <li>- Transplant the seedling at 20-25 days after sowing.</li> <li>- Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.</li> </ul>
<b>Pulses</b>	Maturity to harvesting		<ul style="list-style-type: none"> <li>- Harvest mature pods before rains and dry under shed to protect from rains.</li> </ul>
<b>Rabi maize</b>	Vegetative	Stem borer	<ul style="list-style-type: none"> <li>- Apply irrigation at an interval of 10-15 days to maintain moisture status.</li> <li>- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.</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 seeds.</li> <li>- After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b>.</li> </ul>
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	<ul style="list-style-type: none"> <li>- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.</li> </ul>
<b>French Bean</b>	Sowing		<ul style="list-style-type: none"> <li>- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed &amp; row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill.</li> <li>- Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.</li> </ul>
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		<ul style="list-style-type: none"> <li>- Go for nursery rising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout.</li> <li>- Light watering during morning hours may be done.</li> <li>- Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.</li> </ul>
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		<ul style="list-style-type: none"> <li>- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started.</li> <li>- Collect good quality planting material from known source.</li> </ul>
<b>Bhindi</b>	Sowing		<p>For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani</p>
<b>Chilli/ capsicum</b>	Nursery to early vegetative		<p>In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack.</p> <ul style="list-style-type: none"> <li>- Transplant nursery in raised beds.</li> <li>- Give light watering to keep soil moist during vegetative phase.</li> </ul>

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

<b>Tomato/ Brinjal</b>	Transplanting to vegetative		<ul style="list-style-type: none"> <li>- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt.</li> <li>- Apply 75:30:60 kg of NPK/ ha at the time of transplanting.</li> <li>- A light irrigation should be given just after transplanting</li> </ul>
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	<ul style="list-style-type: none"> <li>- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.</li> </ul>
<b>Onion/ Garlic</b>	Bulb formation		<ul style="list-style-type: none"> <li>- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.</li> </ul>

**Animal Sciences**

<b>Name of the animal</b>			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. <ol style="list-style-type: none"> <li>1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds.</li> <li>2. R<sub>2</sub>B vaccine of 8-9 weeks of age group birds (layers).</li> <li>3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).</li> </ol>
		Deworming	<ul style="list-style-type: none"> <li>➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.</li> </ul>
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	<ul style="list-style-type: none"> <li>➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.</li> </ul>
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	<ul style="list-style-type: none"> <li>➤ Spray with Skin Heal Spray in sufficient quantity.</li> </ul>
		Deworming	<ul style="list-style-type: none"> <li>➤ Give Piperazine liquid @ 10-15ml orally once only.</li> </ul>
		B.Q./ H.S/FMD	<ul style="list-style-type: none"> <li>➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot &amp; Mouth Disease, etc.</li> </ul>
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

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



**MANIPUR BULLETIN**

**7<sup>th</sup> March, 2017**

**Chandel**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 8<sup>th</sup> to 12<sup>th</sup> March, 2017 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 6<sup>th</sup> March, 2017)</b> Observed mainly clear sky and <b>0.5 mm</b> rainfall was recorded during past four days. Maximum temperature range of 20.9 to 26.7 °C and rise in minimum temperature range of 9.7 to 14.7 °C with mean relative humidity 78.8 % max and 51.5 % min was recorded in the past four days. The average wind speed range remained 5.2 to 7.4 km/hr.	<b>Weather forecast for next five days of Chandel (8<sup>th</sup> to 12<sup>th</sup> March, 2017)</b> Likely to have heavy rainfall at isolated places from 11 <sup>th</sup> March and partly cloudy to mainly cloudy sky with maximum temp. 23 – 27 °C & minimum temp. 13 - 14 °C. Relative humidity may reach up to 98 % (max RH) & 51 % (min RH). The average wind speed may be 2-5 km/hr. Wind direction may be South Easterly to Westerly during next five days.
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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>Pre-Kharif rice</b>	Nursery to transplanting		- Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - Transplant the seedling at 20-25 days after sowing. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot.
<b>Pulses</b>	Maturity to harvesting		- Harvest mature pods before rains and dry under shed to protect from rains.
<b>Rabi maize</b>	Vegetative	Stem borer	- Apply irrigation at an interval of 10-15 days to maintain moisture status. - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
<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 seeds. - After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in <b>godowns</b> .
<b>Horticulture Crops</b>			
* Apply life saving irrigation to passion fruit, pineapple and other fruit crops and mulch with dry grass at the basin to conserve the soil moisture.			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger &amp; Turmeric</b>	Land preparation		Sorting of rhizome for seed may be started for new planting. Land preparation for planting may be started.
<b>Citrus</b>	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
<b>French Bean</b>	Sowing		- Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawaii) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
<b>Cucurbits</b>	Nursery raising to land preparation for transplanting in open field		- Go for nursery raising in polybags (size: 8cm X 10cm) under low cost polyhouse. In the 50 kg mixture of garden soil, sand and FYM in the ratio 2:1:1 incorporate 2gm Captan 50W.P. One seed is sown per polybag and kept covered with polythene sheet till the seeds sprout. - Light watering during morning hours may be done. - Prepare land for transplanting 4-5 leave stage cucurbits seedlings in open field.
<b>Tree bean/ Lime/ Lemon/ Khasi Mandarin/ Banana</b>	Land preparation and collection of planting material		- Preparation of pits or field for planting tree bean/ lime/ lemon/ khasi mandarin/ banana may be started. - Collect good quality planting material from known source.
<b>Bhindi</b>	Sowing		For sowing bhindi, land preparation may be done. Sowing of bhindi/ladies finger may be done at the spacing of 30cm x 45cm. Apply 25kg urea, 33kg DAP and 25kg MOP per sangam at final stage of land preparation before sowing. Recommended varieties are - Arka Anamika and Pusa Sawani
<b>Chilli/ capsicum</b>	Nursery to early vegetative		In chilies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack. - Transplant nursery in raised beds. - Give light watering to keep soil moist during vegetative phase.



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



<b>Tomato/ Brinjal</b>	Transplanting to vegetative		<ul style="list-style-type: none"> <li>- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. Bleaching powder may also be applied @ 15kg/ ha to prevent bacterial wilt.</li> <li>- Apply 75:30:60 kg of NPK/ ha at the time of transplanting.</li> <li>- A light irrigation should be given just after transplanting</li> </ul>
<b>Garden pea/ Broad bean</b>	Fruiting to harvesting	powdery mildew and yellow rust	<ul style="list-style-type: none"> <li>- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.</li> </ul>
<b>Onion/ Garlic</b>	Bulb formation		<ul style="list-style-type: none"> <li>- During the bulb formation stage, check that the neck portion is not covered with soil. Light hoeing and irrigation is necessary to keep soil moist during this phase.</li> </ul>

### Animal Sciences

Name of the animal			
Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Ranikhet disease	At the end of winter season and starting of spring season by March, there may be outbreaks of Ranikhet Disease, hence vaccinate all birds against Ranikhet Diseases in this time. 1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R <sub>2</sub> B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Management	Use Butox @2ml in ltr of water and brush with the medicated water at forth night interval.
		Deworming	New born but not yet been dewormed should be given deworming agent.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		Care and management	Provide clean water(drinking). Add antibiotics in feed and water. vaccinate against FMD.
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	- Butox@ 2ml/lit of water at forth nightly interval.
		Mastitis	Animals should be milked completely.
		Fodder cultivation	Fodder crops should be irrigated every 20-30 days and 20-22 days for oat cultivation.

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