



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

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Senapati (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 31 - 35 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 99 % (max RH) & 94 % (min RH). The average wind speed may be 2 km/hr.

**Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.

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<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

**Animal Sciences****\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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



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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Tamenglong (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 32 - 35 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 100 % (max RH) & 96 % (min RH). The average wind speed may be 2 km/hr.

**Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.



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<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

### Animal Sciences

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- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

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**Weather forecast for next five days of Thoubal (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 31 - 35 °C & minimum temp. 24 - 26 °C. Relative humidity may reach up to 100 % (max RH) & 97 % (min RH). The average wind speed may be 0-4 km/hr.

As the water level in crop field in some parts of valley area still high and in some other parts the water level is higher than the optimum level, hence no cultural operations can be done in the fields. Clean the sheds of birds/ animals properly and spray insecticide/ lime powder and let it dry for some days. Preventive measures to avoid flies and mosquitoes population in and around the sheds. Shift them back to its sheds after the sheds are dry enough for healthy stay. Provide clean drinking water with antibiotic to avoid diseases. When water level goes down advisories as under may be followed.

***Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.***

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
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<b>Orange/Lime/ Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
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<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
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<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
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<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

**Animal Sciences****\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Imphal East (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 33 - 34 °C & minimum temp. 22 - 23 °C. Relative humidity may reach up to 100 % (max RH) & 97 % (min RH). The average wind speed may be 2 km/hr.

As the water level in crop field in some parts of valley area still high and in some other parts the water level is higher than the optimum level, hence no cultural operations can be done in the fields. Clean the sheds of birds/ animals properly and spray insecticide/ lime powder and let it dry for some days. Preventive measures to avoid flies and mosquitoes population in and around the sheds. Shift them back to its sheds after the sheds are dry enough for healthy stay. Provide clean drinking water with antibiotic to avoid diseases. When water level goes down advisories as under may be followed.

***Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.***

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.

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

<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

**Animal Sciences****\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Imphal West (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 33 - 34 °C & minimum temp. 24 - 26 °C. Relative humidity may reach up to 100 % (max RH) & 96 % (min RH). The average wind speed may be 2 km/hr.

As the water level in crop field in some parts of valley area still high and in some other parts the water level is higher than the optimum level, hence no cultural operations can be done in the fields. Clean the sheds of birds/ animals properly and spray insecticide/ lime powder and let it dry for some days. Preventive measures to avoid flies and mosquitoes population in and around the sheds. Shift them back to its sheds after the sheds are dry enough for healthy stay. Provide clean drinking water with antibiotic to avoid diseases. When water level goes down advisories as under may be followed.

***Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.***

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.



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



<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

### Animal Sciences

**\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Bishnupur (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 32 - 35 °C & minimum temp. 25 °C. Relative humidity may reach up to 100 % (max RH) & 97 % (min RH). The average wind speed may be 0-2 km/hr.

As the water level in crop field in some parts of valley area still high and in some other parts the water level is higher than the optimum level, hence no cultural operations can be done in the fields. Clean the sheds of birds/ animals properly and spray insecticide/ lime powder and let it dry for some days. Preventive measures to avoid flies and mosquitoes population in and around the sheds. Shift them back to its sheds after the sheds are dry enough for healthy stay. Provide clean drinking water with antibiotic to avoid diseases. When water level goes down advisories as under may be followed.

***Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.***

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.





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



<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/ Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

### Animal Sciences

**\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Chandel (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 31 - 35 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 100 % (max RH) & 97 % (min RH). The average wind speed may be 3-4 km/hr.

**Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.



**ICAR Research Complex for N.E.H. Region**  
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**“Gramin Krishi Mausam Seva”**



<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

### Animal Sciences

**\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****18<sup>th</sup> July, 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 19<sup>th</sup> to 23<sup>rd</sup> July, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> July, 2017)**

Observed partly cloudy to overcast sky and **1.1 mm** rainfall was recorded during past four days. Maximum temperature range of 29.6 to 31.6 °C and minimum temperature range of 23.5 to 23.8 °C with mean relative humidity 87.25 % max and 70.0 % min was recorded in the past four days.

**Weather forecast for next five days of Churachandpur (19<sup>th</sup> to 23<sup>rd</sup> July, 2017)**

Likely to have moderate rains at isolated places with mainly cloudy to overcast sky and maximum temp. 32 - 35 °C & minimum temp. 25 - 26 °C. Relative humidity may reach up to 100 % (max RH) & 97 % (min RH). The average wind speed may be 0-2 km/hr.

**Seedling of rice may be raised using dry bed method with RC Maniphou-12 for transplanting before 15<sup>th</sup> August. Prepare 20 plots for transplanting in a hectare field. Plot size is 4 x 20 feet and sow seeds @ 2kg/ plot.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Nursery to land preparation and transplanting (kharif rice)		<ul style="list-style-type: none"> <li>- Apply Carbofuran 3G @2kg/ha a week before uprooting the seedling.</li> <li>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.</li> <li>- Uproot seedlings at 25 to 35 days after sowing depending on availability of water. About 1200 to 1300 bundles of seedlings (40cm diameter) may be required for transplanting one ha area.</li> </ul>
	Direct seeding with drum seeder		<ul style="list-style-type: none"> <li>- The seeds may be sown when water level goes down.</li> <li>- Recommended rice var. RC Maniphou-7.</li> <li>- Treat seed with Humicil @ 5ml/kg seed.</li> <li>- Puddle the field and level properly.</li> <li>- Drain out water 24 hrs before sowing.</li> <li>- Use just pre-germinated seeds.</li> </ul>
<b>Maize</b>	Vegetative		<ul style="list-style-type: none"> <li>- At knee height stage, apply urea @ 43 kg Urea/ ha after rains.</li> <li>- Measures must be taken to avoid water logging in the crop field.</li> </ul>
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Earthing-up and thinning may be done at 30 to 40 days after sowing of crop after rain.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid sowing in water logged fields. Also, avoid hairy caterpillars.</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>
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Ginger</b>	Vegetative		Water soaked lesions may develop at the base of the pseudo-stem. Later on rotting may spread to the rhizome. To prevent it spray Redomil MZ72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times.
<b>Bhindi</b>	Fruiting to harvesting		Infested leaf curl upward in margin. If small young nymphs of different colours are found on the underside of the leaves, spray Monocrotophos 36EC @ 1 ml / lit of water after harvesting the mature fruits.

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**“Gramin Krishi Mausam Seva”**

<b>Passion Fruit</b>	Fruiting	Fruit rot	Spray Metalxyl + Mencozeb @ 2 g/lit water at 7 days interval.
		Anthraxnose	Spray Carbendazim 12% + Mencozeb 63% WP @1 mg/lit of water.
		Collar rot	Drench the soil of collar region with 1% Bordeaux mixture.
		Brown spot	- Remove the infected leaves and burn and spray Zineb@ 2 mg/ lit of water.
		Termite	Apply Chloropyriphos 10%G @ 25kg/ha into the soil.
		Fruit fly	Apply poison baiting with Jaggery + fruit juice + Malathion (20:20:1) @ 40-50 baits/ ha.
		Thrips	Spray Imidachloprid 17.8% SL @ 1ml/ lit of water.
<b>Orange/Lime/Lemon</b>	Vegetative		Apply 650g Urea, 1250g SSP and 450g MOP per tree in circular trench around the trunk. Spray Carbendazim @2g/lit water or Metalxyl + Mencozeb @ 2.5 g/lit water on sunny day. After 7 days spray Imidachloprid @ 5ml/ 10 lit of water.
		Greening	- Spray Streptocycline @ 1g/10 lit of water or Tetracycline@5g/10 litre water.
<b>Tree bean</b>	Transplanting/ Fertilizer application		One year or more than a year old quality seedling may be transplanted in the pit. Recommended spacing is 10x10 m from plant to plant and row to row At the time of planting apply 5 kg FYM + 30 gm lime+30 gm linden 5% dust + 5 ml Chlorpyriphos 20 EC + 1.5 g Mancozeb + Carbendazim per pit. For 7 yrs and above and for bearing plants apply 7 kg FYM, 120 Kg urea, 300 gm SSP, 80 gm MOP, 1 Kg lime should be applied.

**Animal Sciences****\* Provide clean drinking water for birds and animals.**

- Apply Himax ointment twice daily on animal body to prevent bite of fly and mosquitoes.

<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	Fowl Pox	Vaccinate against fowl pox.
		Coccidiosis	- Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.
		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.
			- Bleaching powder may be spread near farm premises. - Avoid fungal infested feed. - Use dry litter material in the shed, if moist apply lime powder @ 1kg per 100 ft <sup>2</sup> area.
<b>Sheep/ Goat</b>	All age groups	Vaccination	- Sheep should be vaccinated against B.Q./ H.S.
<b>Pig</b>	All age groups except the young ones	De-worming	- De-worming of animals should be done using Albendazole @7.5 mg/kg b.wt.
		Vaccination	- Vaccinate against FMD.
		Management	- Provide adequate amount of wholesome water (drinking). - Essential body salts may be provided.
<b>Cattle</b>	All age groups excepts the young ones	B.Q. & H.S.	Vaccinate against B.Q., F.M.D. & H.S.
		Deworming	Use Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		Slush & Flood Management	Provide wholesome water. Adequate arrangements for the animals to be kept at the safety place be made. Avoid grazing at the periphery of flood.
		Milk fever in Milch cow	70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

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