



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

**MANIPUR BULLETIN****4<sup>th</sup> September, 2018****Bishnupur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but Mainly Clear during morning hours of **31<sup>st</sup> Aug**. Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr**.

**Weather forecast for next five days of Bishnupur (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **31-32 °C** & minimum temp. **22-24 °C**. Relative humidity may reach upto **99 %** (max RH) & **80 %** (min RH). The average wind speed may be **2-4 km/hr**.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018**Chandel

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but Mainly Clear during morning hours of **31<sup>st</sup> Aug**. Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr**.

**Weather forecast for next five days of Chandel (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **31-32 °C** & minimum temp. **22-24 °C**. Relative humidity may reach upto **99 %** (max RH) & **70 %** (min RH). The average wind speed may be **2-3 km/hr**.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018****Churachandpur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but Mainly Clear during morning hours of **31<sup>st</sup> Aug.** Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr.**

**Weather forecast for next five days of Churachandpur (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **31-32 °C** & minimum temp. **22-24 °C.** Relative humidity may reach upto **99 % (max RH) & 73 % (min RH).** The average wind speed may be **2-3 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018****Imphal East**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but Mainly Clear during morning hours of **31<sup>st</sup> Aug.** Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr.**

**Weather forecast for next five days of Imphal East (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **31-32 °C** & minimum temp. **22-24 °C.** Relative humidity may reach upto **99 % (max RH) & 79 % (min RH).** The average wind speed may be **2-3 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018****Imphal West**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but **Mainly Clear** during morning hours of **31<sup>st</sup> Aug.** Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr.**

**Weather forecast for next five days of Imphal West (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **31-32 °C** & minimum temp. **22-24 °C.** Relative humidity may reach upto **99 % (max RH)** & **62 % (min RH).** The average wind speed may be **0-2 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.



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



<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018**Senapati

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but **Mainly Clear** during morning hours of **31<sup>st</sup> Aug.** Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr.**

**Weather forecast for next five days of Senapati (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **26-28 °C** & minimum temp. **19-20 °C.** Relative humidity may reach upto **99 % (max RH)** & **77 % (min RH).** The average wind speed may be **2-3 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.



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



<b>Animal Sciences</b>			
* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.			
<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018****Tamenglong**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but Mainly Clear during morning hours of **31<sup>st</sup> Aug**. Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr**.

**Weather forecast for next five days of Tamenglong (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **26-28 °C** & minimum temp. **19-20 °C**. Relative humidity may reach upto **99 %** (max RH) & **76 %** (min RH). The average wind speed may be **2-3 km/hr**.

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018****Thoubal**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but Mainly Clear during morning hours of **31<sup>st</sup> Aug.** Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr.**

**Weather forecast for next five days of Thoubal (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **31-32 °C** & minimum temp. **22-24 °C.** Relative humidity may reach upto **99 % (max RH)** & **74 % (min RH).** The average wind speed may be **2-4 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Potato</b>	Land preparation		- Select the area with fertile and sandy loam soil. Land preparation for planting potato for early crop and also for production of seed may be started in foothills and upland area.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.
<b>Orange</b>	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.

**Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to <i>consume muddy water to protect from E.coli infection. Use water sanitizer.</i>
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(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****4<sup>th</sup> September, 2018****Ukhrul**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5<sup>th</sup> to 9<sup>th</sup> September, 2018 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (31<sup>st</sup> August to 3<sup>rd</sup> September, 2018)**

Observed **11.4 mm** rainfall with **mainly cloudy to overcast sky** but **Mainly Clear** during morning hours of **31<sup>st</sup> Aug.** Maximum temperature recorded ranged from **28.0 to 32.2 °C** and minimum of **20.7 to 23.0 °C** with mean relative humidity **93.8 %** max and **71.3 %** min was recorded in the past three days & average wind speed was **1.8 – 4.4 km/ hr.**

**Weather forecast for next five days of Ukhrul (5<sup>th</sup> to 9<sup>th</sup> September, 2018)**

Likely to have light to moderate rains on Wednesday then no rain thereafter during next five days and partly cloudy to mainly cloudy sky with maximum temp. **26-28 °C** & minimum temp. **19-20 °C.** Relative humidity may reach upto **99 % (max RH)** & **76 % (min RH).** The average wind speed may be **2-3 km/hr.**

<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Panicle Initiation to flowering		- Maintain water level at 5-8 cm.
		Leaf folder	Spray Thiomethoxam @ 5g/ 15 lit of water.
		Case worm, Stem Borer/ Gall midge/Plant Hoppers or Thrips	Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
<b>Soybean/ Groundnut</b>	Fruiting to seed maturity		- Avoid water logging.
		Hairy caterpillars	- For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water).
		Tikka disease in groundnut	- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
		Rust in soybean	- Prune or stake plants and remove weeds to improve air circulation and use a thick layer of mulch or organic compost to cover the soil. - Apply copper sprays or sulfur powders or bio-fungicide to prevent infection of susceptible plants.
<b>Blackgram/ Rice Bean</b>	Fruiting to seed maturity		- Avoid water logging. - Spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) against hairy caterpillars.
<b>Seeds storage</b>	Post-harvest management		For seed purpose store the seeds in <b>RC-Seed Bin</b> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying properly. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Fruit plants (Mango, Litchi, guava)</b>	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting, make pit size of 1x1x1 foot.
<b>French Bean, Broad bean &amp; Pea</b>	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.
<b>Cauliflower</b>	Curd formation stage of early crop		- Weeding may be done.
	transplanting of main season crop		- Light watering during morning hours may be done till the plants get established.
	nursery of late crop		- Raise late crop cauliflower nursery.
<b>Ginger/ Turmeric</b>	Rhizome initiation		- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with compost in soil as bio-fertilizer. - Avoid water logging in and around the crop field.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”****Animal Sciences**

\* Provide clean drinking water for birds and animals. Drainage may be constructed well around the birds or animals sheds to avoid water logging.

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ Duck)</b>	All age groups	• Vaccination	• Vaccinate birds against Fowl Pox.
		• Deworming	• Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		• Management	• Do not allow to consume muddy water to protect from E.coli infection. Use water sanitizer.
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• If the animals are not vaccinated against F.M.D., B.Q., H.S., Enterotoxaemia, etc. do it in this month.
		• Fascioliosis	• Give Tolzan-F @ 15ml orally/ kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		• Management	• Protect from thunder showers. Protect from after winds (loo). • Avoid flies by using Basil/ bouquets of Nirgundi or lemon grass by hanging.
<b>Pig</b>	All age groups except the young ones	• De-worming	• Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
		• Coccidial infection (Diarrhea)	• Ofloxacin tab twice daily for 5 days.
		• Ticks	• Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		• Vaccination	• Vaccinate against FMD.
		• Management	• Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S. if not yet vaccinated.
		• Deworming	• De-worm with Albomac suspension @ 60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Endoparasite/ Ectoparasite	• Inject Ivomec @ 1 ml/ 50 kg body weight.
		• Care & Management	• Give mineral mixture @ 30-50g daily.
		• Milk fever	• Give 100-150ml of mixture calcium and phosphorous daily.

(I.Meghachandra Singh)

Scientist i/c, GKMS