



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

**MANIPUR BULLETIN****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Tamenglong (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 33 - 34 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 99 % (max RH) & 79 % (min RH). The average wind speed may be 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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

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

<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

**Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.**(I. Meghachandra Singh)  
Scientist i/c, GKMS



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

**MANIPUR BULLETIN****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Thoubal (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 32 - 34 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 99 % (max RH) & 85 % (min RH). The average wind speed may be 0-4 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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

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

<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

**Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.**(I. Meghachandra Singh)  
Scientist i/c, GKMS



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

**MANIPUR BULLETIN****1<sup>st</sup> August, 2017****Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Ukhrul (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 30 - 32 °C & minimum temp. 22 - 23 °C. Relative humidity may reach up to 98 % (max RH) & 82 % (min RH). The average wind speed may be 2-3 km/hr.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Rice	Transplanting to tillering (kharif rice)		- If seedlings are available, complete transplanting before 15 <sup>th</sup> August. To have more tillers, avoid excess water in the field. - Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm. - In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done. - Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @3ml/15 lit of water or Lambdacythrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
	Direct seeding with drum seeder		- The seeds may be sown if the water level goes down. Recommended rice var. RC Maniphou-7. Treat seed with Humicil @ 5ml/kg seed. Puddle the field and level properly. Drain out water 24 hrs before sowing. Use just pre-germinated seeds.
Maize	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
Soybean / Groundnut	Vegetative		- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. - Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.
Blackgram & Rice bean	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
Seeds storage	Post harvest management		- For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. - For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Ginger	Vegetative to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
Cauliflower	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm. - Check for infestation of Plutella Diamond black moth in young plants.
			- Raise mid season varieties.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
Papaya	Transplanting		- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey). - Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.



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

Manipur Centre, Lamphelpat, Imphal - 795 004

## “Gramin Krishi Mausam Seva”



<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

### Animal Sciences

\* Provide clean drinking water for birds and animals.

Name of bird/animal	Stage	Disease and Management	Agro-meteorological advisories
<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

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





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

**MANIPUR BULLETIN****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

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**Weather forecast for next five days of Imphal East (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 31 - 33 °C & minimum temp. 22 - 23 °C. Relative humidity may reach up to 99 % (max RH) & 77 % (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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>

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Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

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

<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

**Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.**(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****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Imphal West (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 32 - 33 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 99 % (max RH) & 77 % (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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

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

<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

**Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.**(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****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Bishnupur (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 33 - 34 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 99 % (max RH) & 85 % (min RH). The average wind speed may be 0-4 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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

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

<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

**Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.**(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****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Chandel (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 33 - 34 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 99 % (max RH) & 90 % (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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

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

<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

**Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.**(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****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Churachandpur (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 33 - 34 °C & minimum temp. 24 - 25 °C. Relative humidity may reach up to 99 % (max RH) & 91 % (min RH). The average wind speed may be 0-3 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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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 to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
<b>Cauliflower</b>	Transplanting to early vegetative (early variety) and sowing of mid season variety.	Plutella Diamond black moth	<ul style="list-style-type: none"> <li>- Transplant healthy seedlings of early cauliflower ( variety like Early Himlata/ White Shot/ White treasure) at a spacing of 45cm x 45cm.</li> <li>- Check for infestation of Plutella Diamond black moth in young plants.</li> </ul>
			- Raise mid season varieties.
<b>King Chilli</b>	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water.
<b>Papaya</b>	Transplanting		<ul style="list-style-type: none"> <li>- Transplant 2 months old seedlings with spacing of 1.5-2.0 m x 1.5-2.0 m for dwarf varieties (Ranchi dwarf/ Pusa dwarf) and 2.5m x 2.5m for tall varieties (Coorg Honey).</li> <li>- Legumes may be grown as intercrop in newly established orchard but not chilli and tomato.</li> </ul>



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

Manipur Centre, Lamphelpat, Imphal - 795 004

### “Gramin Krishi Mausam Seva”



<b>Banana</b>	New Plantation		- Plant at a spacing of 2.7m x 3m for tall varieties (Nendran group) and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties (Cavendish group). Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.
	Old Plantation		- Remove extra suckers and maintain 3 plants per pit. - Care must be taken to avoid wilting disease in banana grown in same pit in poor drained area for more than 5-6 years.

#### Animal Sciences

\* Provide clean drinking water for birds and animals.

Name of bird/animal	Stage	Disease and Management	Agro-meteorological advisories
<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 clean and wholesome water. Keep animals in safe place. Avoid grazing at the periphery of flood. Animals should be protected against illness caused due to damp weather. Mineral mixtures/vitamins should be fed at this time. Do not allow to drink flood water.
		Milk fever in Milch cow	70-100ml of a mixture of Ca <sup>+</sup> and Phosphorus daily @ 5-7days.

Apply Agri lime in the fish culture pond after the water level reaches normal depth after flood @ 30-35 kg /ha at 30days interval.

(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****1<sup>st</sup> August, 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 2<sup>nd</sup> to 6<sup>th</sup> August, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (28<sup>th</sup> to 31<sup>st</sup> July, 2017)**

Observed partly cloudy to overcast sky and **19.1 mm** rainfall was recorded during past four days. Maximum temperature range of 30.2 to 32.0 °C and minimum temperature range of 22.4 to 23.2 °C with mean relative humidity 90 % max and 65 % min was recorded in the past four days.

**Weather forecast for next five days of Senapati (2<sup>nd</sup> to 6<sup>th</sup> August, 2017)**

Likely to have heavy rains at isolated places upto Friday with mainly cloudy to overcast sky and maximum temp. 31 - 32 °C & minimum temp. 23 - 24 °C. Relative humidity may reach up to 98 % (max RH) & 74 % (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>	Transplanting to tillering (kharif rice)		<ul style="list-style-type: none"> <li>- If seedlings are available, complete transplanting before 15<sup>th</sup> August. To have more tillers, avoid excess water in the field.</li> <li>- Maintain a thin film of water upto 7 days after transplanting. Then raise water level to 5-8cm.</li> <li>- In upland area, hand weeding may be done. Off-type plants must be removed. Then top dressing may be done.</li> <li>- Drain out the water and apply 33kg of urea as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing.</li> </ul>
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
		Case worm, borer, leaf folder, thrips	Coragen @ 3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
	Direct seeding with drum seeder	Stem borer	- For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml/ha.
<b>Maize</b>	Vegetative		- Weeding may be done to avoid insect pest in the crop field and also avoid water logging in the crop field.
<b>Soybean / Groundnut</b>	Vegetative		<ul style="list-style-type: none"> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> <li>- Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut.</li> </ul>
<b>Blackgram &amp; Rice bean</b>	Vegetative		- Avoid sowing in water logged fields. Also, avoid hairy caterpillars during vegetative stage.
<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>
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<b>Ginger</b>	Vegetative to rhizome formation		Water soaked lesions and rhizome rot disease spray Redomil MZ72 W.P. @ 2 g/ lit of water alternately with Dithane M-45 @ 2.5 gm/ lit of water at 15 days interval for 2-3 times.
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