



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

**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Chandel**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Chandel (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29-31 °C & minimum temp. 18-20°C. Relative humidity may reach up to 98 % (max RH) & 86 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spaning may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

- Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

\* Partial/ total harvesting of fish should be done.

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



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

**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****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 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Churachandpur (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29-31 °C & minimum temp. 18-20°C. Relative humidity may reach up to 100 % (max RH) & 89 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spaning may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
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<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

• Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

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**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Imphal East**

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**Weather forecast for next five days of Imphal East (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29 - 31 °C & minimum temp. 18 - 20 °C. Relative humidity may reach up to 98 % (max RH) & 78 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spaning may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
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<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

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- Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

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**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Imphal West**

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<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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



			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

• Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

\* Partial/ total harvesting of fish should be done.

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

**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Senapati**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Senapati (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 28-29 °C & minimum temp. 17-19 °C. Relative humidity may reach up to 98 % (max RH) & 83 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

- Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

\* Partial/ total harvesting of fish should be done.

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

**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Tamenglong**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Tamenglong (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 28-29 °C & minimum temp. 17-19 °C. Relative humidity may reach up to 98 % (max RH) & 82 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spaning may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

- Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

\* Partial/ total harvesting of fish should be done.

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Thoubal**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Thoubal (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 29-31 °C & minimum temp. 18-20°C. Relative humidity may reach up to 98 % (max RH) & 77 % (min RH). The average wind speed may be 2-5 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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed





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			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

- Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

\* Partial/ total harvesting of fish should be done.

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

**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Ukhrul**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Ukhrul (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 28-29 °C & minimum temp. 17-19 °C. Relative humidity may reach up to 98 % (max RH) & 83 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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**“Gramin Krishi Mausam Seva”**



			for 20 minutes and let it dry in shed before planting as preventive measure against soil borne diseases.
<b>Ginger/ Turmeric</b>	Rhizome formation	Rhizome rot	- Spray Carbendazim @2.5 g/lit of water for rhizome rot.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

### Animal Sciences

Name of bird/ animal	Stage	Disease and Management	Agro-meteorological advisories
<b>Poultry (Chicken/ / Duck)</b>	All age groups	• Deworming	• Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half of the dose in empty stomach
		• Litter Management	• Use dry litter material in the shed; • if there is moisture, apply lime powder @ 1kg per 100 ft <sup>2</sup> area • Litter may be come wet due to sudden and unexpected rain during this time, wet litter must be replaced immediately
<b>Sheep/ Goat</b>	All age groups	• Vaccination	• Vaccinate against B.Q./ H.S. this time. • Lambs should be vaccinated against Enterotoxaemia.
		• De-worming	• Administer Tolzan-F @ 2.5ml orally/ 50kg b. wt.
		• Shearing for wool	• Sheep should be sheared during this month.
<b>Pig</b>	All age groups except the young ones	• Coccidial infection (Diarrhea)	• Ofloxacin/ Ornidazole (O <sub>2</sub> ) tab twice daily for 5 days.
		• De-worming	• De-worm with Albendazole @7.5 mg/kg b.wt.
		• Vaccination	• Vaccinate against FMD.
		• Skin disease	• Sprayer of Anti- <i>Psoroptic</i> may be used
<b>Cattle</b>	All age groups excepts the young ones	• Vaccination	• Vaccinate against B.Q., F.M.D. & H.S.if not yet vaccinated. • Cases of H.S. may be encountered during this period • Immediate treatment using appropriate drugs with the help of Consultant must be advocated to save the animals.
		• Deworming	• De-worm with Albomac suspension@60-90ml for 300kg body weight or 20-30ml for 100 kg body weight.
		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
		Milk fever in Milch cow	• 70-100ml of a mixture of Ca+ and Phosphorus daily @ 5-7days.

- Forage/ fodder cultivation- Sowing of Bersum and Alfalfa should be started now.

### Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
<b>Carp culture</b>	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month or broadcast Green AQ @ 2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 3-5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 10000-12000 fingerlings can be stocked in one hectare pond. Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. Sampling of fish for growth, disease should be done regularly by netting.

\* Partial/ total harvesting of fish should be done.

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**MANIPUR BULLETIN****20<sup>th</sup> October, 2017****Bishnupur**

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21<sup>st</sup> to 25<sup>th</sup> October, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (17<sup>th</sup> to 19<sup>th</sup> October, 2017)**

Observed partly cloudy to overcast sky and **4.1 mm** rainfall was recorded during past three days. Maximum temperature range of 28.2 to 29.7 °C and minimum temperature range of 20.3 to 21.3 °C with mean relative humidity 91.0 % max and 71.7 % min was recorded in the past three days.

**Weather forecast for next five days of Bishnupur (21<sup>st</sup> to 25<sup>th</sup> October, 2017)**

Likely to have heavy rains at isolated places upto Sunday with partly cloudy to overcast sky and maximum temp. 30 - 31 °C & minimum temp. 22-23 °C. Relative humidity may reach up to 98 % (max RH) & 87 % (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>	Maturity to harvesting		If the crop has attained maturity then water needs to be drained out nearly 15 days before tentative date of harvesting. Avoid water logging during maturity stage. Harvesting may be done before rains, if (75-80) % of the spikelet is yellow in colour. Stacking of the harvested panicles for 5-7 days by turning the heap of panicles can help in better threshing.
<b>Rapeseed/ Field Pea/ Lentil</b>	Seed collection		Procure quality seeds from reliable source for planting just after harvest of rice/ soybean/ groundnut/ black gram or rice bean.
<b>Soybean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried under shed to attain required moisture content for storage.
<b>Groundnut</b>	Maturity to harvesting		Immediately harvest mature crops before rains. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity to harvesting		Immediately harvest mature crops before rains. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Seeds storage</b>	Post harvest management		For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of charcoal and dry if required. For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.
<b>Horticulture Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Coriander</b>	Land preparation & sowing		- Select area with bright sunshine rich in organic manure for preparing beds. Treat seeds using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. - Seed rate is 100g seeds for 100 sq. m.
<b>Spinach beet (Palak)</b>	Land preparation & sowing		- Well drained soil is best for growing spinach beet. - Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. - Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.
<b>Onion</b>	Nursery raising		- Apply Captan 50 WP during final land preparation as preventive measures against soil borne diseases. - For 25 sq m area we need ½ kg seeds. - check that the new sprouts/ young plants in nursery beds are not damaged. - 45-60 days old seedlings may be transplanted.
<b>French Bean &amp; Broad bean</b>	Land preparation		- Sowing of pea/ French bean may be done in the plot where colocasia/ cucurbits, etc. had been harvested and where there is proper drainage facility. 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.
<b>Potato</b>	Tuber seed treatment		Collect seed tubers from reliable source and treated it with Sixer (Carbendazim + Mancozeb) @ 2 gm/lit of water or Carbaryl 50 WP or Ridomil @ 2 gm/kg tuber seed



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		• Care & Management	• Mixture of mineral/ salts should be added in the feed. • Avoid the cattle from chiting/biting by Flies • Adopt tick control measures
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