



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

**MANIPUR BULLETIN****6<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 7<sup>th</sup> to 11<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>          Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Bishnupur (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>           Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 32 °C &amp; minimum temp. 22 °C. Relative humidity may reach up to 97 % (max RH) &amp; 77 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
	Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.	
<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.



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**“Gramin Krishi Mausam Seva”**



<b>French Bean &amp; Broad bean</b>	Land preparation to sowing		- 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>	Land preparation and seed collection		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel. Collect disease free tuber seed for planting.
<b>Ginger/ Turmeric</b>	Rhizome formation		- Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam. Mulching with leaves of Lantana camera is also useful for controlling shoot borer. - Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
	Shoot borer		- Spray <i>Malathion</i> or <i>Monocrotophos</i> @ 1 ml/ lit of water at 21 days interval twice or thrice depending upon the severity of incidence.

**Animal Sciences**

- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.
- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.

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.
<b>Cattle</b>	All age groups excepts the young ones	)] Skin disease	)] Sprayer of Anti- <i>Psoroptic</i> may be used
		)] 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 safe 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 <sup>+</sup> and Phosphorus daily @ 5-7days.

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

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



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<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>          Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Chandel (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>           Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 32 °C &amp; minimum temp. 22 °C. Relative humidity may reach up to 96 % (max RH) &amp; 76 % (min RH). The average wind speed may be 2 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
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<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
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<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
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<b>Ginger/ Turmeric</b>	Rhizome formation		- Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam. Mulching with leaves of Lantana camera is also useful for controlling shoot borer. - Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
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**MANIPUR BULLETIN****6<sup>th</sup> October, 2017**Imphal East

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 7<sup>th</sup> to 11<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>  Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Imphal East (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>   Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 31 °C &amp; minimum temp. 21 °C. Relative humidity may reach up to 96 % (max RH) &amp; 81 % (min RH). The average wind speed may be 3-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
		Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.
<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.



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

**Manipur Centre, Lamphelpat, Imphal - 795 004**

**“Gramin Krishi Mausam Seva”**



<b>French Bean &amp; Broad bean</b>	Land preparation to sowing		- 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>	Land preparation and seed collection		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel. Collect disease free tuber seed for planting.
<b>Ginger/ Turmeric</b>	Rhizome formation		- Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam. Mulching with leaves of Lantana camera is also useful for controlling shoot borer. - Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
	Shoot borer		- Spray <i>Malathion</i> or <i>Monocrotophos</i> @ 1 ml/ lit of water at 21 days interval twice or thrice depending upon the severity of incidence.

**Animal Sciences**

- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.
- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.

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 safe 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 <sup>+</sup> and Phosphorus daily @ 5-7days.

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

(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****3<sup>rd</sup> October, 2017**Imphal West

GKMS at AMFU- Lamphelpat, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and India Meteorological Department, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 4<sup>th</sup> to 8<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> September to 2<sup>nd</sup> October, 2017)</b>          Observed clear to overcast sky and <b>58.7 mm</b> rainfall was recorded during past four days. Maximum temperature range of 25.4 to 31.2 °C and minimum temperature range of 21.0 to 22.0 °C with mean relative humidity 95.8 % max and 74.0 % min was recorded in the past four days.</p>	<p><b>Weather forecast for next five days of Imphal West (4<sup>th</sup> to 8<sup>th</sup> October, 2017)</b>          Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 32 °C &amp; minimum temp. 22 °C. Relative humidity may reach up to 94 % (max RH) &amp; 56 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- Drain out excess water and maintain at the level of 5-8cm in grain filling stage but if the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Neck Blast	- Spray Tricyclazole @ 6g/10 litres of water.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
		Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.
<b>Soybean</b>	Maturity stage		Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		Harvesting may be done when the pods turns yellow. 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>Carrot/ Radish/ Coriander</b>	Sowing		<i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.
<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 Hawaii (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>	Land preparation and seed		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area.



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

**Manipur Centre, Lamphelpat, Imphal - 795 004**

**“Gramin Krishi Mausam Seva”**



	collection		- Select the area with fertile and sandy loam soil rather than with stone and gravel. - Collect disease free tuber seed for planting.
<b>Ginger/ Turmeric</b>	Rhizome formation	Leaf blotch & Leaf Spot	- To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mencozeb @ 2g/ litre of water at 7-10 days interval.
		Soil nutrition management	- Apply Phosphate solubilizing bacteria @ 3-5kg/ acre (1.6 sangam) with soil to improve soil fertility.

**Animal Sciences**

**- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.**

**- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.**

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	)] 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 safe 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.

**(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****6<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 7<sup>th</sup> to 11<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>          Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Senapati (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>           Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 29 °C &amp; minimum temp. 20 °C. Relative humidity may reach up to 93 % (max RH) &amp; 77 % (min RH). The average wind speed may be 3-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
		Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.
<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.



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

**Manipur Centre, Lamphelpat, Imphal - 795 004**

**“Gramin Krishi Mausam Seva”**



<b>French Bean &amp; Broad bean</b>	Land preparation to sowing		- 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>	Land preparation and seed collection		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel. Collect disease free tuber seed for planting.
<b>Ginger/ Turmeric</b>	Rhizome formation		- Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam. Mulching with leaves of Lantana camera is also useful for controlling shoot borer. - Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
	Shoot borer		- Spray <i>Malathion</i> or <i>Monocrotophos</i> @ 1 ml/ lit of water at 21 days interval twice or thrice depending upon the severity of incidence.

**Animal Sciences**

- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.
- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	)] 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 safe 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 <sup>+</sup> and Phosphorus daily @ 5-7days.

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

(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****6<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 7<sup>th</sup> to 11<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>  Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Tamenglong (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>   Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 29 °C &amp; minimum temp. 20 °C. Relative humidity may reach up to 97 % (max RH) &amp; 76 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
		Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.
<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.



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

**Manipur Centre, Lamphelpat, Imphal - 795 004**

**“Gramin Krishi Mausam Seva”**



<b>French Bean &amp; Broad bean</b>	Land preparation to sowing		- 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>	Land preparation and seed collection		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel. Collect disease free tuber seed for planting.
<b>Ginger/ Turmeric</b>	Rhizome formation		- Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam. Mulching with leaves of Lantana camera is also useful for controlling shoot borer. - Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
	Shoot borer		- Spray <i>Malathion</i> or <i>Monocrotophos</i> @ 1 ml/ lit of water at 21 days interval twice or thrice depending upon the severity of incidence.

**Animal Sciences**

- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.
- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	)] 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 safe 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 <sup>+</sup> and Phosphorus daily @ 5-7days.

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

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****6<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 7<sup>th</sup> to 11<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>  Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Thoubal (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>  Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 32 °C &amp; minimum temp. 22 °C. Relative humidity may reach up to 97 % (max RH) &amp; 77 % (min RH). The average wind speed may be 2-4 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
		Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.
<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.



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

**Manipur Centre, Lamphelpat, Imphal - 795 004**

**“Gramin Krishi Mausam Seva”**



<b>French Bean &amp; Broad bean</b>	Land preparation to sowing		- 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>	Land preparation and seed collection		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel. Collect disease free tuber seed for planting.
<b>Ginger/ Turmeric</b>	Rhizome formation		- Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam. Mulching with leaves of Lantana camera is also useful for controlling shoot borer. - Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. Apply Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
	Shoot borer		- Spray <i>Malathion</i> or <i>Monocrotophos</i> @ 1 ml/ lit of water at 21 days interval twice or thrice depending upon the severity of incidence.

**Animal Sciences**

- Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.
- Take up measures to reduce flies and mosquitoes population in and around the birds/ animals sheds.

<b>Name of bird/ animal</b>	<b>Stage</b>	<b>Disease and Management</b>	<b>Agro-meteorological advisories</b>
<b>Poultry (Chicken/ / Duck)</b>	All age groups	)] 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 safe 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 <sup>+</sup> and Phosphorus daily @ 5-7days.

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

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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****6<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 7<sup>th</sup> to 11<sup>th</sup> October, 2017 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (3<sup>rd</sup> to 5<sup>th</sup> October, 2017)</b>  Observed mainly clear to partly cloudy but mainly cloudy during morning hours of 3<sup>rd</sup> Oct sky and <b>3.4 mm</b> rainfall was recorded during past three days. Maximum temperature range of 30.3 to 31.3 °C and minimum temperature range of 20.7 to 22.0 °C with mean relative humidity 88.7 % max and 67.0 % min was recorded in the past three days.</p>	<p><b>Weather forecast for next five days of Ukhrul (7<sup>th</sup> to 11<sup>th</sup> October, 2017)</b>   Likely to have heavy rains on Saturday and Sunday at isolated places during next five days with mainly cloudy to overcast sky and maximum temp. 29 °C &amp; minimum temp. 20 °C. Relative humidity may reach up to 92 % (max RH) &amp; 71 % (min RH). The average wind speed may be 2 km/hr.</p>
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<b>Field Crops</b>			
<b>Name of the crop</b>	<b>Stage</b>	<b>Pest and disease</b>	<b>Agro-meteorological advisories</b>
<b>Rice</b>	Grain filling to maturity		- If the crop is in grain filling stage, maintain water level at 5-8 cm. - If the crop has attained maturity then drain out water nearly 15 days before tentative date of harvesting.
		Aphid, mealy bugs	- Spray Fipronil @ 2g/15 litres or Imidachlopid 17.8 SL @ 7 ml/ 15 litres of water.
	Plant hopper	- Spray Imidachlorpid @7 ml/ 15 lit of water.	
<b>Soybean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. After harvesting, seeds should be dried to attain required moisture content for storage.
<b>Groundnut</b>	Maturity stage		- Harvesting may be done. For seed purpose, bundling should be done and kept for 3-4 days to increase maturity.
<b>Blackgram &amp; Rice bean</b>	Maturity stage		- Harvesting may be done when the pods turns yellow. 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>Pineapple</b>	Planting material collection		- Collect planting material from reliable source for planting.
<b>Mango</b>	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or Planth growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.
<b>Carrot/ Radish/ Coriander</b>	Sowing		- <i>Radish/ Carrot/ Corriander</i> may be sown after rains.
<b>Tree Bean</b>			- Near the surrounding basin of tree bean plant (of both bearing and pre-bearing, i.e., above 5 yrs old), at a radius of 1 to 2 ft. light hoeing may be done and apply 60g DAP+ 10g MOP and spray Carbendazim @ 2g/ lit water to moist the soil to a depth of 1 ft. - 20g Carbofuran 3G/ plant may also be in-corporated if not applied earlier as prophylactic measure.
<b>Cabbage/ Broccoli/ Cauliflower</b>	Nursery		- Nursery site should be fertile, well drained, with no water logging. - Provide shift arrangement like temperory rain shelter made up of polythene/ tin/ paddy straw. Temperory roof of the nursery bed should be in the slanting position (6 feet in the East and 4 feet in the west at a height of 4 feet. - Apply Captan 50 WP@ 5g/m <sup>2</sup> after preparation of the nursery bed. After application keep it covered for at least 24-48 hours.
<b>Onion</b>	Sowing/ planting		- Land preparation for sowing of onion (nursery) in the upland areas may be done. Nursery area should be fertile, well drained, with no water logging.



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**“Gramin Krishi Mausam Seva”**



<b>French Bean &amp; Broad bean</b>	Land preparation to sowing		- 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>	Land preparation and seed collection		- Land preparation for planting potato for early crop and also for production of seed may be started after the rains in foothills and upland area. - Select the area with fertile and sandy loam soil rather than with stone and gravel. Collect disease free tuber seed for planting.
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	Shoot borer		- Spray <i>Malathion</i> or <i>Monocrotophos</i> @ 1 ml/ lit of water at 21 days interval twice or thrice depending upon the severity of incidence.

**Animal Sciences**

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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
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