



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



**MANIPUR BULLETIN**

**18<sup>th</sup> October, 2016**

**Imphal East**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b></p> <p>The sky remain mainly cloudy to overcast during morning hours of 14<sup>th</sup> &amp; 15<sup>th</sup> but foggy during morning hours of 16<sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17<sup>th</sup>. <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal East (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b></p> <p>Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 28 – 30 °C &amp; minimum temp. 17 – 19 °C. Relative humidity may reach upto 100% (max RH) &amp; 44% (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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



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**MANIPUR BULLETIN**

**18<sup>th</sup> October, 2016**

**Imphal West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b></p> <p>The sky remain mainly cloudy to overcast during morning hours of 14<sup>th</sup> &amp; 15<sup>th</sup> but foggy during morning hours of 16<sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17<sup>th</sup>. <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal West (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b></p> <p>Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 29 – 31 °C &amp; minimum temp. 18 - 20 °C. Relative humidity may reach upto 100% (max RH) &amp; 42% (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.



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**“Gramin Krishi Mausam Seva”**



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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**MANIPUR BULLETIN**  
**18<sup>th</sup> October, 2016**

**Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b> The sky remain mainly cloudy to overcast during morning hours of 14 <sup>th</sup> & 15 <sup>th</sup> but foggy during morning hours of 16 <sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17 <sup>th</sup> . <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.	<b>Weather forecast for next five days of Ukhrul (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b> Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 26 – 28 °C & minimum temp. 16 - 18 °C. Relative humidity may reach upto 97% (max RH) & 50% (min RH). The average wind speed may be 4 km/hr. Wind direction may be North Easterly during next five days.
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.





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**“Gramin Krishi Mausam Seva”**



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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 Scientist i/c, GKMS



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**“Gramin Krishi Mausam Seva”**



**MANIPUR BULLETIN**

**18<sup>th</sup> October, 2016**

**Tamenglong**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b></p> <p>The sky remain mainly cloudy to overcast during morning hours of 14<sup>th</sup> &amp; 15<sup>th</sup> but foggy during morning hours of 16<sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17<sup>th</sup>. <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.</p>	<p><b>Weather forecast for next five days of Tamenglong (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b></p> <p>Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 29 – 31 °C &amp; minimum temp. 18 - 20 °C. Relative humidity may reach upto 100% (max RH) &amp; 44% (min RH). The average wind speed may be 4 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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 Scientist i/c, GKMS





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

**MANIPUR BULLETIN****18<sup>th</sup> October, 2016****Thoubal**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b> The sky remain mainly cloudy to overcast during morning hours of 14 <sup>th</sup> & 15 <sup>th</sup> but foggy during morning hours of 16 <sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17 <sup>th</sup> . <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.	<b>Weather forecast for next five days of Thoubal (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b> Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 28 – 30 °C & minimum temp. 18 - 20 °C. Relative humidity may reach upto 99% (max RH) & 58% (min RH). The average wind speed may be 4-6 km/hr. Wind direction may be South Easterly during next five days.
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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**“Gramin Krishi Mausam Seva”**



**MANIPUR BULLETIN**  
**18<sup>th</sup> October, 2016**

**Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b> The sky remain mainly cloudy to overcast during morning hours of 14 <sup>th</sup> & 15 <sup>th</sup> but foggy during morning hours of 16 <sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17 <sup>th</sup> . <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.	<b>Weather forecast for next five days of Ukhrul (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b> Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 26 – 28 °C & minimum temp. 16 - 18 °C. Relative humidity may reach upto 99% (max RH) & 40% (min RH). The average wind speed may be 4 km/hr. Wind direction may be North Easterly during next five days.
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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



**MANIPUR BULLETIN**

**18<sup>th</sup> October, 2016**

**Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b></p> <p>The sky remain mainly cloudy to overcast during morning hours of 14<sup>th</sup> &amp; 15<sup>th</sup> but foggy during morning hours of 16<sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17<sup>th</sup>. <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.</p>	<p><b>Weather forecast for next five days of Bishnupur (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b></p> <p>Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 28 – 30 °C &amp; minimum temp. 18 - 19 °C. Relative humidity may reach upto 99% (max RH) &amp; 53% (min RH). The average wind speed may be 4 km/hr. Wind direction may be South Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.





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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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 Scientist i/c, GKMS



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**“Gramin Krishi Mausam Seva”**



**MANIPUR BULLETIN**

**18<sup>th</sup> October, 2016**

**Chandel**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 19<sup>th</sup> to 23<sup>rd</sup> October, 2016 as below:

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b></p> <p>The sky remain mainly cloudy to overcast during morning hours of 14<sup>th</sup> &amp; 15<sup>th</sup> but foggy during morning hours of 16<sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17<sup>th</sup>. <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.</p>	<p><b>Weather forecast for next five days of Chandel (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b></p> <p>Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 27 – 29 °C &amp; minimum temp. 17 - 19 °C. Relative humidity may reach upto 97% (max RH) &amp; 61% (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be South Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Rapeseed/ Mustard</b>	Seed collection		➤ Procure good quality seeds from reliable sources for sowing at zero tillage after the harvesting of rice for economic utilization of available soil moisture.
<b>Field pea</b>	Land preparation		➤ Land preparation for sowing field pea may be started.
<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
<b>Horticulture Crops</b>			
* Land preparation for planting may be done for transplanting raised seedlings and seeds of rabi vegetables.			
<b>Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)</b>	Land preparation for nursery to transplanting of raised seedlings		➤ Prepare nursery beds to sow rabi vegetables preferably under rain protected structures. ➤ For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
<b>Ginger/ Turmeric</b>	Rhizome formation		➤ Disease free mulching material may be used when soil moisture reduces.
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
<b>Garden Pea</b>	Land preparation to sowing		Early sowing of garden pea should be completed at earliest possible.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	➤ Proper ventilation must be provided to protect excessive heat during day time. ➤ Use water sanitizer in drinking water/potassium permanganate (few grains).
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:			
* Encircle pond with happa net to avoid escape of fishes from the pond.			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		- Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds for grow out @ 3% body weight per day and 5% body weight per day for nurseries. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water. - Partial harvesting of grown-up fishes may be done.

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



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**MANIPUR BULLETIN**

**18<sup>th</sup> October, 2016**

**Churachandpur**

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<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (14<sup>th</sup> to 17<sup>th</sup> October, 2016)</b></p> <p>The sky remain mainly cloudy to overcast during morning hours of 14<sup>th</sup> &amp; 15<sup>th</sup> but foggy during morning hours of 16<sup>th</sup> and mainly clear to partly cloudy during afternoon hours and morning of 17<sup>th</sup>. <b>14.9 mm</b> rainfall was recorded during past four days. Maximum temperature range observed was 28.8 to 31.0 °C, range of minimum temperature observed was 19.1 to 20.2 °C, mean relative humidity observed in morning and afternoon were 94.5 % and 63.8 % respectively. The average wind speed range was 2.2 to 3.1 km/hr.</p>	<p><b>Weather forecast for next five days of Churachandpur (19<sup>th</sup> to 23<sup>rd</sup> October, 2016)</b></p> <p>Likely to have no rainfall during next five days. Sky will remain mainly clear to partly cloudy with maximum temp. 27 – 29 °C &amp; minimum temp. 17 - 19 °C. Relative humidity may reach upto 99% (max RH) &amp; 52% (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South Easterly during next five days.</p>
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**Weather Outlook for subsequent 2 days from 23rd October 2016 to 25th October 2016**

Rain at isolated places over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Main kharif rice</b>	Grain filling to maturity and harvesting	Neck Blast/ Sheath blight/ sheath rot/ Smut disease	➤ Spray Tricyclazole @ 15gm/ 15 litre or Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
		Aphid, mealy bugs, Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			➤ Drain out water completely 10 days before harvesting rice. ➤ Mature crops may be harvested as there is likely to have no rain during next five days.
<b>Groundnut/ Soybean</b>	Maturity to harvesting		➤ Maintain proper drainage system to avoid water logging so that the soil is relatively dry to enhance quality of the crop.
<b>Blackgram / rice bean</b>	Fruiting to maturity		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
<b>Potato</b>	Land preparation and seed tuber collection		➤ Prepare land and plant seed tubers when the soil is relatively dry after rains. ➤ Procure good quality seed tuber collection may be done from reliable sources for planting. ➤ Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
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<b>Pre-kharif rice seeds</b>	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
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		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended.
<b>Tree Bean (4 to 5 yrs old)</b>			➤ Apply 3kg FYM, 70g Urea, 200g SSP and 50g MOP per plant (dose may be varied according to the age of the plant).
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