



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

**MANIPUR BULLETIN****3<sup>rd</sup> January, 2017****Imphal East**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>  Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 ° C and a rise in Minimum temperature from 6.0 to 8.4 ° C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal East (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>  Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 22 – 24 ° C &amp; minimum temp. 6 - 8 ° C. Relative humidity may reach up to 100 % (max RH) &amp; 38 % (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 Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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**“Gramin Krishi Mausam Seva”**

			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

SMS:

Lakliba Nongmaijing faobada mafam kharada nong khara chuba yai. Entham chuzak thadringeida maru 1kg da 2g Mencozeb totlaga pungkhai thammaga thabiyu. Hawaida mangal amadi masoorida wahik ngakthoknaba ishing litre 15da 7-10ml Imidachloprid happaga kappiyu.

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



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

**MANIPUR BULLETIN****3<sup>rd</sup> January, 2017****Imphal West**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>  Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 ° C and a rise in Minimum temperature from 6.0 to 8.4 ° C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Imphal West (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>  Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 21 – 23 ° C &amp; minimum temp. 6 - 8 ° C. Relative humidity may reach up to 100 % (max RH) &amp; 40 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
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		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

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**MANIPUR BULLETIN****3<sup>rd</sup> January, 2017****Bishnupur**

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<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>          Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 °C and a rise in Minimum temperature from 6.0 to 8.4 °C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Bishnupur (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>          Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 22 – 24 °C &amp; minimum temp. 5 - 7 °C. Relative humidity may reach up to 100 % (max RH) &amp; 41 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
 Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
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<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
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<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
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<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

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**MANIPUR BULLETIN**  
**3<sup>rd</sup> January, 2017**

**Chandel**

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

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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

SMS:

Lakliba Nongmaijing faobada mafam kharada nong khara chuba yai. Entham chuzak thadringeida maru 1kg da 2g Mencozeb totlaga pungkhai thammaga thabiyu. Hawaida mangal amadi masoorida wahik ngakthoknaba ishing litre 15da 7-10ml Imidachloprid happaga kappiyu.

(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> January, 2017**

**Churachandpur**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>  Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 ° C and a rise in Minimum temperature from 6.0 to 8.4 ° C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Churachandpur (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>  Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 21 – 23 ° C &amp; minimum temp. 5 - 7 ° C. Relative humidity may reach up to 100 % (max RH) &amp; 36 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South Westerly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

SMS:

Lakliba Nongmaijing faobada mafam kharada nong khara chuba yai. Entham chuzak thadringeida maru 1kg da 2g Mencozeb totlaga pungkhai thammaga thabiyu. Hawaida mangal amadi masoorida wahik ngakthoknaba ishing litre 15da 7-10ml Imidachloprid happaga kappiyu.

(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> January, 2017****Senapati**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>  Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 °C and a rise in Minimum temperature from 6.0 to 8.4 °C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Senapati (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>  Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 17 – 19 °C &amp; minimum temp. 2 - 4 °C. Relative humidity may reach up to 100 % (max RH) &amp; 39 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

SMS:

Lakliba Nongmaijing faobada mafam kharada nong khara chuba yai. Entham chuzak thadringeida maru 1kg da 2g Mencozeb totlaga pungkhai thammaga thabiyu. Hawaida mangal amadi masoorida wahik ngakthoknaba ishing litre 15da 7-10ml Imidachloprid happaga kappiyu.

(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> January, 2017**

**Tamenglong**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>          Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 ° C and a rise in Minimum temperature from 6.0 to 8.4 ° C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Tamenglong (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>          Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 22 – 24 ° C &amp; minimum temp. 6 - 7 ° C. Relative humidity may reach up to 93 % (max RH) &amp; 36 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
 Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to



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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox @ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

SMS:

Lakliba Nongmaijing faobada mafam kharada nong khara chuba yai. Entham chuzak thadringeida maru 1kg da 2g Mencozeb totlaga pungkhai thammaga thabiyu. Hawaida mangal amadi masoorida wahik ngakthoknaba ishing litre 15da 7-10ml Imidachloprid happaga kappiyu.

(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> January, 2017**

**Thoubal**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>  Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 ° C and a rise in Minimum temperature from 6.0 to 8.4 ° C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Thoubal (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>  Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 23 – 24 ° C &amp; minimum temp. 6 - 8 ° C. Relative humidity may reach up to 100 % (max RH) &amp; 45 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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

Manipur Centre, Lamphelpat, Imphal - 795 004

**“Gramin Krishi Mausam Seva”**

			absence of micronutrient. If required repeat it after 10 days. - Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
<b>Coriander</b>	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
<b>Spinach (Palak)</b>	Vegetative		- Light watering may be done to maintain soil moisture.
<b>Animal Sciences</b>			
<b>Name of the animal</b>			
<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
<b>Pig</b>	All age groups except the young ones	De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
		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
<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox @ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

SMS:

Lakliba Nongmaijing faobada mafam kharada nong khara chuba yai. Entham chuzak thadringeida maru 1kg da 2g Mencozeb totlaga pungkhai thammaga thabiyu. Hawaida mangal amadi masoorida wahik ngakthoknaba ishing litre 15da 7-10ml Imidachloprid happaga kappiyu.

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**MANIPUR BULLETIN**  
**3<sup>rd</sup> January, 2017**

**Ukhrul**

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

<p><b>Significant past weather for the preceding bi-weekly of Imphal - West (30<sup>th</sup> December, 2016 to 2<sup>nd</sup> January, 2017)</b>  Observed foggy to mainly cloudy during morning hours and mainly clear to partly cloudy sky during afternoon hours and no rainfall in past three days. Maximum temperature range of 22.8 to 24.3 ° C and a rise in Minimum temperature from 6.0 to 8.4 ° C with mean relative humidity 91.25 % max and 46.5 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.</p>	<p><b>Weather forecast for next five days of Ukhrul (4<sup>th</sup> to 8<sup>th</sup> January, 2017)</b>  Likely to have light rain at isolated places upto Sunday. Mainly clear to partly cloudy sky with maximum temp. 17 – 19 ° C &amp; minimum temp. 2 - 4 ° C. Relative humidity may reach up to 99 % (max RH) &amp; 42 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.</p>
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**Weather Forecast for next 5 days \* upto 0830 hours IST of 8<sup>th</sup> January, 2017**  
Shallow to Moderate fog at isolated places very likely over northeastern states during next 3 days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Potato</b>	Early vegetative		- Keep soil moist for good vegetative growth.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
<b>Rapeseed/ Mustard</b>	Vegetative and late sowing		- Irrigation may be given at 30-35 days after sowing if the soil moisture have decline. - Top dress with 33 kg Urea/ ha just after irrigation. - Late sowing may be done if available soil moisture is as much that impression of finger on the soil when pressed. Mulch the field with straw after sowing.
<b>Pulses</b>	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage. Plant to plant distance may be maintained by thinning.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
<b>Rabi maize</b>	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min and sow.
<b>Seeds storage</b>	Post harvest management		- For seed purpose dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal at 80:20. 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>			
<b>Cucurbits</b>	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
<b>Rabi Vegetable (cole crops)</b>	Transplanting and vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops. - If there is incidence of leaf eating caterpillar, spray Flubendiamide (Fame) @ 2ml/ 10 lit of water. Spray Imidachloprid 17.8SL @5ml/10 litres of water on 20days old seedlings as prophylactic spray.
<b>Tomato</b>	Transplanting and vegetative		- Avoid transplanting of tomato in the bed/ plots where chilli/ brinjal were previously grown. It is better to plant it where the previous crop was rice, maize, etc. to avoid bacterial wilt.
<b>Garden pea/ Broad bean</b>	Vegetative		- Light watering may be done to maintain soil moisture.
		powdery mildew and yellow rust	- Spray Bayleton @ 7 g/ 10 litres of water against powdery mildew and yellow rust especially to the crops grown in moist/ shady area.
<b>Onion</b>	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Thinning of onion nursery may be followed if there is shortage of land and manpower for transplanting. Give light irrigation during morning and evening hours till the plant get established.
<b>Cauliflower</b>	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - Select varieties Candid charm and white shot for late season crop. - Apply Tracel @ 300gm/ sangam in 30-35days old (after transplanting) cauliflower to avoid leaf curling, development of purple coloured vein due to

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<b>Poultry (Chicken/ Turkey/ Duck)</b>	All age groups	Care & management	Protect from intense cold. Keep the shed wall covered with hessian cloth during night. Proper ventilation must be provided to protect from moisture inside the shed. Litter must be kept dry.
<b>Sheep/ Goat</b>	All age groups excepts the young ones	Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
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<b>Cattle</b>	All age groups excepts the young ones	Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
		B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc.
		Ectoparasites	Butox@ 2ml/lit of water at forth nightly interval.
<b>Fishery:</b>			
<b>Type of Farming</b>			
<b>Carp/ Catfish culture</b>	Harvesting and stock maintenance		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. - Feeds should be provided @ 3 % body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Lime @ 30-35 kg/ha at 30days interval.

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