



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

**MANIPUR BULLETIN****6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Chandel (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 21 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 97 % (max RH) & 43 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be Westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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“Gramin Krishi Mausam Seva”



			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.



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Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

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



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**MANIPUR BULLETIN****6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Churachandpur (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 23 – 24 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 95 % (max RH) & 37 % (min RH). The average wind speed may be 4-6 km/hr. Wind direction may be south-easterly to southerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.



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Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

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



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**MANIPUR BULLETIN****6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Senapati (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 18 – 20 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 97 % (max RH) & 30 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be north-easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

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



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MANIPUR BULLETIN
6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Tamenglong (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 21 – 23 °C & minimum temp. 5 - 8 °C. Relative humidity may reach up to 98 % (max RH) & 33 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be north-easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.



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Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

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



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**MANIPUR BULLETIN****6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Thoubal (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 22 – 24 °C & minimum temp. 6 - 7 °C. Relative humidity may reach up to 99 % (max RH) & 38 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be southerly to south-westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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



			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.



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“Gramin Krishi Mausam Seva”



Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

(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****6th 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 7th to 11th January, 2017 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017) Observed mainly clear to partly cloudy sky and 3.7 mm rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.</p>	<p>Weather forecast for next five days of Ukhrul (7th to 11th January, 2017) Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 18 – 20 °C & minimum temp. 2 - 4 °C. Relative humidity may reach up to 97 % (max RH) & 30 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be north-easterly during next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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“Gramin Krishi Mausam Seva”



			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.



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



Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

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



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“Gramin Krishi Mausam Seva”

**MANIPUR BULLETIN****6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Imphal East (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 21 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 99 % (max RH) & 30 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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“Gramin Krishi Mausam Seva”



			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

(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****6th 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 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Imphal West (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 22 – 24 °C & minimum temp. 6 - 8 °C. Relative humidity may reach up to 98 % (max RH) & 31 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be North Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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



			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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.

(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****6th January, 2017****Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 7th to 11th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (3rd to 5th January, 2017)

Observed mainly clear to partly cloudy sky and **3.7 mm** rainfall in past three days. Maximum temperature range of 22.8 to 23.7 °C and a rise in Minimum temperature from 6.4 to 8.7 °C with mean relative humidity 90.7 % max and 45.0 % min was recorded in the past three days. The average wind speed range remained 3.4 to 4.3 km/hr.

Weather forecast for next five days of Bishnupur (7th to 11th January, 2017)

Likely to have no rain upto Wednesday. Weather is most likely to remain dry. Dense fog is very likely to occur at isolated pockets during next 2days. Mainly clear to partly cloudy sky with maximum temp. 22 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 96 % (max RH) & 36 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be southerly to south-westerly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Vegetative		- Keep soil moist for good growth. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP.
		Aphid	- If aphid is observed in small area, wash off it with plain water but if it is severe, spray cypermethrin 20 E.C. @ 1ml/ litre of water.
		Early Blight	- Spray Mencozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative		- Regular monitoring of moisture of soil may be done to ensure good growth. Irrigation may be given if the soil moisture have decline.
Pulses	Vegetative and late sowing		- Give light irrigation to pea and lentil just to keep soil moist during vegetative stage.
		Rust or Powdery mildew	- Spray Propiconazole @ 15ml/ 15 litre water.
		Aphid	- Spray Imidachloprid 17.8 SL @ 7-10ml/ 15 litre of water against aphid.
Rabi maize	Sowing		- It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Mencozeb @ 2g/ kg of seeds and shade dry for 30 min then sowing may be done.
Seeds storage	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 .
Horticulture Crops			
Cucurbits	Nursery raising		- Prepare for raising nursery of cucurbits in poly-pouch and trays under low cost or naturally ventilated polyhouse.
Rabi Vegetable (cole crops)	Vegetative		- 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.
Tomato	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.
Garden pea/ Broad bean	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.
Onion	Vegetative		- 45-60 days old onion seedlings may be transplanted. - Give light irrigation during morning and evening hours till the plant get established.
Cauliflower	Transplanting to vegetative		- 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 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.
Coriander	Vegetative and late sowing		- Light watering may be done to maintain soil moisture. - For late, treat seed with Trichoderma harzianum @ 10g/kg seed is



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			recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.



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Animal Sciences			
Name of the animal			
Poultry (Chicken/ Turkey/ Duck)	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.
Sheep/ Goat	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.
Pig	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
Cattle	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.
Fishery:			
Type of Farming			
Carp/ Catfish culture	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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