



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

**MANIPUR BULLETIN****30th December, 2016****Bishnupur**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016)

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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.

Weather forecast for next five days of Bishnupur (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 22 – 24 °C & minimum temp. 6 - 8 °C. Relative humidity may reach up to 96 % (max RH) & 46 % (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	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



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Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyrphos (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. - Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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 night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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.

SMS:

Lakliba Yumjakeisa faobada nong chudaba yai. Entham chuzak thadringei numit15ni mamangda maru 1kg da 2g Captan totlaga thambiyu. Hawaida mangal amadi masoorida kokfai kaba/ kolhing kabadouna tourakpadagi ngakthoknaba ishing litre 10da 7g Bayleton happaga kappiyu.

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



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MANIPUR BULLETIN

30th December, 2016

Chandel

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016)

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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.

Weather forecast for next five days of Chandel (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 21 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 97 % (max RH) & 51 % (min RH). The average wind speed may be 2-3 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	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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. For grains, after proper drying store 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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.

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Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyrphos (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. - Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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.
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		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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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Weather forecast for next five days of Churachandpur (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 22 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 96 % (max RH) & 44 % (min RH). The average wind speed may be 3-4 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	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
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Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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. For grains, after proper drying store 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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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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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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. For grains, after proper drying store 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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



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



Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyriphos (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. - Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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 night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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.

SMS:

Lakliba Yumjakeisa faobada nong chudaba yai. Entham chuzak thadringei numit15ni mamangda maru 1kg da 2g Captan totlaga thambiyu. Hawaida mangal amadi masoorida kokfai kaba/ kolhing kabadouna tourakpadagi ngakthoknaba ishing litre 10da 7g Bayleton 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****30th December, 2016****Imphal east**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016)

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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.

Weather forecast for next five days of Imphal east (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 21 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 99 % (max RH) & 39 % (min RH). The average wind speed may be 3-4 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	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyrphos</i> (1.5%) <i>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. - Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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 night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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.

SMS:

Lakliba Yumjakeisa faobada nong chudaba yai. Entham chuzak thadringei numit15ni mamangda maru 1kg da 2g Captan totlaga thambiyu. Hawaida mangal amadi masoorida kokfai kaba/ kolhing kabadouna tourakpadagi ngakthoknaba ishing litre 10da 7g Bayleton 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****30th December, 2016****Imphal West**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016)

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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.

Weather forecast for next five days of Imphal West (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 21 – 23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 94 % (max RH) & 38 % (min RH). The average wind speed may be 4-5 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	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyrphos</i> (1.5%) <i>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. - Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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 night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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.

SMS:

Lakliba Yumjakeisa faobada nong chudaba yai. Entham chuzak thadringei numit15ni mamangda maru 1kg da 2g Captan totlaga thambiyu. Hawaida mangal amadi masoorida kokfai kaba/ kolhing kabadouna tourakpadagi ngakthoknaba ishing litre 10da 7g Bayleton 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****30th December, 2016****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 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016)

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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.

Weather forecast for next five days of Senapati (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 20-22 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 98 % (max RH) & 34 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North East Easterly to Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyrphos (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. - Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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 night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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.

SMS:

Lakliba Yumjakeisa faobada nong chudaba yai. Entham chuzak thadringei numit15ni mamangda maru 1kg da 2g Captan totlaga thambiyu. Hawaida mangal amadi masoorida kokfai kaba/ kolhing kabadouna tourakpadagi ngakthoknaba ishing litre 10da 7g Bayleton 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
30th December, 2016

Tamenglong

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016)

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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.

Weather forecast for next five days of Tamenglong (31st December, 2016 to 4th January, 2017)

Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 21-23 °C & minimum temp. 5 - 7 °C. Relative humidity may reach up to 91 % (max RH) & 35 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly to North East Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Onion	Vegetative		<ul style="list-style-type: none">- 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.
Cauliflower	Transplanting to vegetative		<ul style="list-style-type: none">- Transplanting of 26-30 days old seedlings may be done.- 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>Chloropyriphos (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		<ul style="list-style-type: none">- Light watering may be done to maintain soil moisture.- Treat seed with <i>Trichoderma harzianum</i> @ 10g/kg seed is recommended to protect against soil borne diseases.
Spinach (Palak)	Vegetative		<ul style="list-style-type: none">- Light watering may be done to maintain soil moisture.
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.
		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
		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 night.
		Care & management	Oat/ Bersum seeds must be sown from the middle of this month.
		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
Fishery:			
Type of Farming			
Carp/ Catfish culture	Harvesting and stock maintenance		<ul style="list-style-type: none">- 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 Yumjakeisa faobada nong chudaba yai. Entham chuzak thadringei numit15ni mamangda maru 1kg da 2g Captan totlaga thambiyu. Hawaida mangal amadi masoorida kokfai kaba/ kolhing kabadouna tourakpadagi ngakthoknaba ishing litre 10da 7g Bayleton happaga kappiyu.

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



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MANIPUR BULLETIN
30th December, 2016

Ukhrul

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 31st December, 2016 to 4th January, 2017 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th December, 2016) 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 23.4 °C and a rise in Minimum temperature from 6.6 to 10.6 °C with mean relative humidity 99.0 % max and 54.3 % min was recorded in the past four days. The average wind speed range remained 2.1 to 3.6 km/hr.	Weather forecast for next five days of Ukhrul (31st December, 2016 to 4th January, 2017) Likely to have no rain upto Wednesday. Mainly clear to partly cloudy sky during afternoon hours with maximum temp. 19-21 °C & minimum temp. 4 - 6 °C. Relative humidity may reach up to 96 % (max RH) & 40 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South South-Easterly to South Westerly during next five days.
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Early vegetative		- keep soil moist for good vegetative growth.
		Early Blight	- Spray Mancozeb at 7-10 days interval against early blight.
Rapeseed/ Mustard	Vegetative and late sowing		- Plant population may be maintained by thinning. - 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.
		Hairy caterpillar	- Spray Chloropyriphos @ 2ml/litre of water on the infected patches only.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only.
Pulses	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 Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi maize	Land preparation to sowing		- Land preparation for sowing rabi maize may be done. - Rabi maize may be sown as intercrop with pulses. 60cm width 40cm high ridges along east-west may be prepared after ploughing. Southern face may be sown with maize and northern with pea seeds. -It may be intercropped with rapeseed/ lentil/ pea. - Treat seed with Captan 15 days before sowing.
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)	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. - If the field condition does not permit for transplanting then date of transplanting may be postponed for 4-5 days.
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.



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Onion	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.
Cauliflower	Transplanting to vegetative		- Transplanting of 26-30 days old seedlings may be done. - 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>Chloropyriphos (1.5%) dust</i> @25 kg /ha to the cauliflower/ cabbage infested by cut-worms. - Light watering may be done to maintain soil moisture.
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		Coccidiosis	➤ Provide Amprolium Solution to protect from coccidiosis @ 1 gm/litre drinking water for 7 days.
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		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
		Mastitis	To protect in-milk animals, all their milk should be removed and after milking, their udders should be cleaned with disinfectant.
		Diarrhoea & Acidosis	Limited quantity of green fodder must be given in animal feed.
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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