



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



MANIPUR BULLETIN
2nd 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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Tamenglong (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 23 – 25 °C & minimum temp. 9 - 11 °C. Relative humidity may reach upto 96 % (max RH) & 47 % (min RH). The average wind speed may be 4-5 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016
Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracerl @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



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			curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyrifos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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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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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Thoubal (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 21 – 23 °C & minimum temp. 9 - 10 °C. Relative humidity may reach upto 100 % (max RH) & 55 % (min RH). The average wind speed may be 2 - 4 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016
Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



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Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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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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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Ukhrul (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 19 – 21 °C & minimum temp. 6 - 8 °C. Relative humidity may reach upto 99 % (max RH) & 53 % (min RH). The average wind speed may be 3 - 4 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016
Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracerl @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



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Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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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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 3rd to 7th December, 2016 as below:

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The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.

Weather forecast for next five days of Imphal East (3rd to 7th December, 2016)

Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 23 – 24 °C & minimum temp. 8 - 10 °C. Relative humidity may reach upto 100 % (max RH) & 47 % (min RH). The average wind speed may be 4 - 5 km/hr. Wind direction may be North Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016

Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



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“Gramin Krishi Mausam Seva”



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Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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

2nd 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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Imphal West (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 22 – 23 °C & minimum temp. 8 - 10 °C. Relative humidity may reach upto 100 % (max RH) & 59 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016

Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracerl @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyrifos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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
2nd 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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Bishnupur (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 22 – 24 °C & minimum temp. 9 - 10 °C. Relative humidity may reach upto 98 % (max RH) & 42 % (min RH). The average wind speed may be 2 - 4 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016
Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracerl @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyrifos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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 Centre, Lamphelpat, Imphal - 795 004
“Gramin Krishi Mausam Seva”



MANIPUR BULLETIN
2nd 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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Thoubal (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 21 – 23 °C & minimum temp. 9 - 10 °C. Relative humidity may reach upto 99 % (max RH) & 58 % (min RH). The average wind speed may be 3 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016
 Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracerl @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyrifos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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
2nd December, 2016

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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Churachandpur (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 21 – 23 °C & minimum temp. 8 - 10 °C. Relative humidity may reach upto 98 % (max RH) & 51 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016
Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Sowing		➤ Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. ➤ Seed rate is 80-100kg/ ha.
Rabi maize	Land preparation		- Land preparation for sowing rabi maize may be started. - 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.
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			
* Light watering during morning hours is advised. * In fruit crops and perennial vegetables, apply organic mulches after earthing up and weeding to conserve residual soil moisture as well as to maintain the soil temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) cole crops.
Ginger	Maturity to harvesting		For 8-9 months old crops or those crops whose 70% of leaves had dried may be harvested. Harvested rhizome must be washed well to remove the adhesive soil for curing.
Onion	Transplanting of raised seedlings and early 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.
Garlic	Planting to early vegetative		- Garlic bulblets may be planted. - Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome formation to maturity	Leaf blotch & Leaf Spot	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5 g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplanting to early vegetative		- Transplanting of 26-30 days old seedlings may be done. - Apply Tracerl @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



			curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply <i>Chloropyrifos</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
Coriander	Sowing		- Select area with full sunshine rich in organic matter for preparing beds. Treat soil using Dichlorovos @ 1ml/ litre of water 2-3 days before sowing to protect seeds from ant and other insects. - Apply 200-250 kg of FYM (@ ½ cart load) in 100 sq. m and mix thoroughly to improve soil fertility. Seed rate is 100g seeds for 100 sq. m.
Spinach (Palak)	Sowing		- Avoid damping off by adding Captan 50WP in the soil of bed. Spacing may be maintained at 10cm x 20-25cm apart. Seed rate is 100-120g/ 100 sq m. If broadcasting is done, double the dose is required.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	Protect from sudden drop in temperature. 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.
		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.
Sheep/ Goat	All age groups excepts the young ones	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		De-worming	➤ De-worming of animals should be done using Abendazole/ Levamisole @7.5 mg/kg b.wt. or Ivermectin @50mg/kg b. wt.
Pig	All age groups except the young ones	Care and management	➤ Mineral mixture be added in feed @ 10-20 g/adult animal. ➤ Treat drinking water with potassium permanganate/ sanitizer. ➤ Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
		Mites infestation	➤ Spray with Skin Heal Spray in sufficient quantity.
		Deworming	➤ Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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

2nd 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 3rd to 7th December, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (29th November to 1st December, 2016) The sky remain foggy during morning hours and clear during afternoon hours with no rainfall was recorded during past three days. Maximum temperature range observed was 22.3 to 24.2 °C, range of minimum temperature observed was 9.5 to 9.6 °C, mean relative humidity observed in morning and afternoon were 95.33 % and 56.0 % respectively. The average wind speed range was 2.2 to 3.3 km/hr.	Weather forecast for next five days of Senapati (3rd to 7th December, 2016) Likely to have no rain upto Wednesday. Dense fog is very likely at isolated places during next two days and mainly clear to partly cloudy during day time with maximum temp. 19 – 21 °C & minimum temp. 6 - 8 °C. Relative humidity may reach upto 100 % (max RH) & 46 % (min RH). The average wind speed may be 4 - 5 km/hr. Wind direction may be North Easterly during next five days.
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Weather Forecast for next 5 days * upto 0830 hours IST of 7th December, 2016

Dense fog at isolated places very likely over Manipur during next 2days

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Seed rate is 25-30 quintals/ hectare. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisable. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		➤ Seed rate is 10 kg/ ha. Treat seeds with Mencozeb @ 2g/ kg seed for the control of white rust and Downey Mildew at early growth stage. Apply 65kg Urea + 188kg SSP + 50kg MOP as basal dose per hectare before sowing. Recommended variety – M-27.
Lentil	Sowing		➤ Sow as relay crop or at zero/ minimum tillage. Seed rate is 40kg/ha.
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