

Manipur Centre, Lamphelpat, Imphal - 795 004





"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 25th November, 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 26th to 30th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (22nd to 24th November, 2016)

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 °C, range of minimum temperature observed was 7.1 to 7.7 ° C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Bishnupur (26th to 30th November, 2016)

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 24 - 25 °C & minimum temp. 8 - 9 ° C. Relative humidity may reach upto 99 % (max RH) & 46 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	<u>'</u>		1
Potato	Sowing		Planting may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		 Sow seeds after the harvesting rice for economic utilization of available soil moisture where there is impression of finger on the soil when pressed. 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		Procure good quality seeds from reliable sources for sowing as relay cropping 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.
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.

- * 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

the son temperature.			
Rabi Vegetable (cole crops)	Transplanting of raised seedlings		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
•	and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5



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	formation to	Spot	g/l) is also recommended provided the plants are green and affected by the
Cauliflamas	maturity Transplantir	ag to	said disease Transplanting of 26-30 days old seedlings may be done.
Cauliflower	early vegeta		 - Hanspianting of 20-30 days old seedings may be done. - Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply Chloropyriphos (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)			- 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)	Poultry All age groups (Chicken/		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	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
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.
Eigh am.		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
Fishery: Type of Farming	Stage	Management	Agra matrological advisories
Carp/ Catfish	Stage Harvesting and	wanagement	Agro-metrological advisories - Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock maintenance		 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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Significant past weather for the preceding bi-weekly of Imphal - West $(22^{nd}\ to\ 24^{th}\ November,\ 2016)$

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 $^{\circ}$ C, range of minimum temperature observed was 7.1 to 7.7 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Chandel $(26^{th} \text{ to } 30^{th} \text{ November}, 2016)$

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 25 – 27 $^{\rm o}$ C & minimum temp. 7 - 8 $^{\rm o}$ C. Relative humidity may reach upto 98 % (max RH) & 52 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly to Southerly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016 Shallow to Moderate fog at isolated places likely over Manipur during next 3 days.

Pest and disease Name of the crop Stage Agro-meteorological advisories Field Crops Planting may be done at a spacing of 60cm X 15-20cm. Recommended Sowing **Potato** varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth. Sow seeds after the harvesting rice for economic utilization of available soil Rapeseed/ Sowing moisture where there is impression of finger on the soil when pressed. Mustard 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. Procure good quality seeds from reliable sources for sowing as relay Lentil Sowing cropping 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. Land preparation - Land preparation for sowing rabi maize may be started. Rabi Maize For seed purpose dry, clean and store the seeds in RC-seed bins after proper Seeds storage Post harvest drying of seeds along with charcoal at 80:20. Check for moisture content or management 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		 Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	vegetative Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5



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	formation to maturity	Spot	g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplantir early vegeta		 Transplanting of 26-30 days old seedlings may be done. Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply Chloropyriphos (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 Science			
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	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
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.
Einl.		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
Fishery:	l g		
Type of Farming Carp/ Catfish	Stage Harvesting and	Management	Agro-metrological advisories - Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
culture	stock maintenance		 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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Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Churachandpur (26th to 30th November, 2016)

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 22 – 24 ° C & minimum temp. 5 - 6 ° C. Relative humidity may reach upto 99 % (max RH) & 44 % (min RH). The average wind speed may be 3 km/hr. Wind direction may be South Easterly to Southerly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016 Shallow to Moderate fog at isolated places likely over Manipur during next 3 days.

Pest and disease Name of the crop Stage Agro-meteorological advisories Field Crops Planting may be done at a spacing of 60cm X 15-20cm. Recommended Sowing **Potato** varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth. Sow seeds after the harvesting rice for economic utilization of available soil Rapeseed/ Sowing moisture where there is impression of finger on the soil when pressed. Mustard 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. Procure good quality seeds from reliable sources for sowing as relay Lentil Sowing cropping 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. Land preparation - Land preparation for sowing rabi maize may be started. Rabi Maize Seeds storage Post harvest 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 management 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		 Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5



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formation to	Spot	g/l) is also recommended provided the plants are green and affected by the said disease.
Transplantir		 Transplanting of 26-30 days old seedlings may be done. Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
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.
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.
Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
All age groups	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
excepts 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.
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.
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.
Stage	Managamar ⁴	Agra matralagical advisories
Harvesting and stock maintenance	манадешен	Agro-metrological advisories - 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.
	Stage maturity Transplantir early vegeta Sowing Sowing Growth stage All age groups excepts the young ones All age groups except the young ones All age groups except the young ones	Transplanting to early vegetative Sowing Sowing Growth stage All age groups Excepts the young ones All age groups except the young ones Ectoparasites Care & management Mites infestation Deworming B.Q./ H.S/FMD Ectoparasites Care & management Mastitis Stage Management Harvesting and stock



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Weather forecast for next five days of Imphal East (26th to 30th November, 2016)

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Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016 Shallow to Moderate fog at isolated places likely over Manipur during next 3 days.

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Potato	Sowing		➢ Planting may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth.
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Lentil	Sowing		Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage. Seed rate is 40kg/ha.
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Rabi Maize	Land preparation		- Land preparation for sowing rabi maize may be started.
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.

- * 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.

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• •	and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
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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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
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		 Transplanting of 26-30 days old seedlings may be done. Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply Chloropyriphos (1.5%) dust @25 kg /ha to the cauliflower/ cabbage infested by cut-worms.
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.
Sowing 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.
S		
Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
All age groups	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
excepts 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.
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.
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.
		Oat/Bersum seeds must be sown from the middle of this month.
	Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
l a		
Stage	Management	Agro-metrological advisories Stockling of Fish for next year may be done in monds having 1.5m years don'th @
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.
	Sowing Sowing	maturity Transplanting to early vegetative Sowing Sowing Growth stage Disease/ infestation All age groups Except sthe young ones All age groups except the young ones Ectoparasites Care & management Mites infestation Deworming B.Q./ H.S/FMD Ectoparasites Care & management Mastitis Stage Management Harvesting and stock Mites infestation Deworming B.Q./ H.S/FMD



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 25th November, 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 26th to 30th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(22^{nd} \ to \ 24^{th} \ November, 2016)$

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 °C, range of minimum temperature observed was 7.1 to 7.7 ° C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Imphal West (26th to 30th November, 2016)

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 23 – 25 °C & minimum temp. 7 - 9° C. Relative humidity may reach upto 99 % (max RH) & 40 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be North Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016

Sowing		-
Sowing		
Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth.
Sowing		Sow seeds after the harvesting rice for economic utilization of available soil moisture where there is impression of finger on the soil when pressed.
		 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.
Sowing		Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage. Seed rate is 40kg/ha.
Sowing		 Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. Seed rate is 80-100kg/ ha.
Land preparation		- Land preparation for sowing rabi maize may be started.
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.
	Sowing Sowing Land preparation Post harvest	Sowing Sowing Land preparation Post harvest

- * 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		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
	and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5)



Manipur Centre, Lamphelpat, Imphal - 795 004





	formation to maturity	Spot	g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplantin	ng to	- Transplanting of 26-30 days old seedlings may be done.
Caumower	early vegeta		- Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf
	earry vegeta	uve	curling, development of purple coloured vein due to absence of micronutrient. If
			required repeat it after 10 days.
			* Apply <i>Chloropyriphos (1.5%) dust @25</i> 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
Corranuer	Sowing		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.
Spinacii (1 aiak)) Sowing		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	7		sq iii. Ii broadcasting is done, dodote the dose is required.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal			
Poultry	All age groups	Care & management	Protect from sudden drop in temperature. Keep the shed wall covered with hessian
(Chicken/			cloth during night. Proper ventilation must be provided to protect from moisture inside
Turkey/ Duck)			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		Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
Pig	All age groups	Care and management	Mineral mixture be added in feed @10-20 g/adult animal.
	except the		Treat drinking water with potassium permanganate/ sanitizer.
	young ones		> 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		> If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, etc.
	young ones		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
			- Stocking of fish for next year may be done in ponds having 1.5m water depth @
Carp/ Catfish	Harvesting and		10,000/ ha.
culture	stock		- Feeds should be provided @ 3 % body weight per day.
	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided.
			- Apply Lime @ 30-35 kg/ha at 30days interval.



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MANIPUR BULLETIN 25th November, 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 26th to 30th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (22nd to 24th November, 2016)

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 °C, range of minimum temperature observed was 7.1 to 7.7 ° C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Senapati (26th to 30th November, 2016)

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 19-21 °C & minimum temp. 3-4 ° C. Relative humidity may reach upto 98 % (max RH) & 39 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops	<u>'</u>		.
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		 Sow seeds after the harvesting rice for economic utilization of available soil moisture where there is impression of finger on the soil when pressed. 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		Procure good quality seeds from reliable sources for sowing as relay cropping 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.
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.

- * 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		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
	and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5



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aturity ransplantir ırly vegeta		said disease Transplanting of 26-30 days old seedlings may be done.
		- Apply Tracel @ 300gm/ sangam in 30-35days old 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</i> (1.5%) dust @25 kg /ha to the cauliflower/ cabbage
owing		infested by cut-worms. - Select area with full sunshine rich in organic matter for preparing beds. Treat
owing		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.
owing		- 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.
th stage	Disease/ infestation	Agro-meteorological advisories
ge 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.
ge groups	Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
ts the g 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.
ge groups t the g 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.
ge groups ts the g 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.
	Management	Agro-metrological advisories
ing and		 Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha. Feeds should be provided @ 3 % body weight per day. Well balanced feed fortified with vitamins and minerals should be provided. Apply Lime @ 30-35 kg/ha at 30days interval.
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Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 25th November, 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 26th to 30th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(22^{nd}$ to 24^{th} November, 2016)

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 $^{\circ}$ C, range of minimum temperature observed was 7.1 to 7.7 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Tamenglong $(26^{th} \text{ to } 30^{th} \text{ November}, 2016)$

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 23 – 25 $^{\circ}$ C & minimum temp. 6 - 8 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 41 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South Easterly to Southerly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016 Shallow to Moderate fog at isolated places likely over Manipur during next 3 days.

Name of the crop Stage Pest and disease Agro-meteorological advisories Field Crops Planting may be done at a spacing of 60cm X 15-20cm. Recommended **Potato** Sowing varieties are Kufri Megha and Kufri Jvoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth. Rapeseed/ Sowing Sow seeds after the harvesting rice for economic utilization of available soil moisture where there is impression of finger on the soil when pressed. Mustard 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. Procure good quality seeds from reliable sources for sowing as relay Lentil Sowing cropping or at zero/minimum tillage. Seed rate is 40kg/ha. Treat seed using Bayistin @ 2.5 mg/lit of water before sowing. Field pea Sowing

Seed rate is 80-100kg/ ha.

Spray Malathion 1% in godowns.

- Land preparation for sowing rabi maize may be started.

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.

Horticulture Crops

Rabi Maize

Seeds storage

* Light watering during morning hours is advised.

Land preparation

Post harvest

management

* 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		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
* /	and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5)



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	formation to maturity	Spot	g/l) is also recommended provided the plants are green and affected by the said disease.
Cauliflower	Transplantii early vegeta		- Transplanting of 26-30 days old seedlings may be done Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply Chloropyriphos (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	S		
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	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
•	excepts 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.
Pig	All age groups	Care and management	➤ Mineral mixture be added in feed @10-20 g/adult animal.
	except the	Cure une management	Treat drinking water with potassium permanganate/ sanitizer.
	young ones		➤ 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.
	young ones		 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.
Fishery:		Mastitis	Adequate care must be taken to prevent occurrence of Masitis.
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Harvesting and		- Stocking of fish for next year may be done in ponds having 1.5m water depth @ 10,000/ ha.
•	stock		- Feeds should be provided @ 3 % body weight per day.
culture	Stock		
culture	maintenance		- Well balanced feed fortified with vitamins and minerals should be provided Apply Lime @ 30-35 kg/ha at 30days interval.



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MANIPUR BULLETIN 25th November, 2016

Thoubal

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 26th to 30th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (22nd to 24th November, 2016)

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 °C, range of minimum temperature observed was 7.1 to 7.7 ° C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Thoubal (26th to 30th November, 2016)

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 24 - 26 °C & minimum temp. 7 - 9 ° C. Relative humidity may reach upto 100 % (max RH) & 48 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			1
Potato	Sowing		➤ Planting may be done at a spacing of 60cm X 15-20cm. Recommended varieties are Kufri Megha and Kufri Jyoti. Seed rate is 25-30 quintals/ hectare. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water. Incubation of seeds in the sand bed for about 7-10 days for sprouting of seed is also advisible. Sow seed at about 3 inch depth.
Rapeseed/ Mustard	Sowing		 Sow seeds after the harvesting rice for economic utilization of available soil moisture where there is impression of finger on the soil when pressed. 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		Procure good quality seeds from reliable sources for sowing as relay cropping 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.
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.

- * 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		- Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea.
	and early vegetative		- Transplant 26-30 days old seedlings (4 leaves stage) of cole crops when soil moisture is optimum for transplanting.
Mango	Bearing trees		For bearing trees, about five years old, 425 g, 275 g and 280 g Urea, SSP and MOP respectively along with 8 kg FYM should be applied in the soil near the base of the tree.
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.
Garlic	Planting		Garlic bulblets may be planted.Give light irrigation during morning and evening hours to keep soil moist.
Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5



Manipur Centre, Lamphelpat, Imphal - 795 004





	formation to	Spot	g/l) is also recommended provided the plants are green and affected by the
	maturity		said disease.
Cauliflower	Transplantir early vegeta		 Transplanting of 26-30 days old seedlings may be done. Apply Tracel @ 300gm/ sangam in 30-35days old cauliflower to avoid leaf curling, development of purple coloured vein due to absence of micronutrient. If required repeat it after 10 days. * Apply Chloropyriphos (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			- 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 Science	S		
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry All age groups (Chicken/ Turkey/ Duck)		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	Vaccination	Vaccinate against sheep/ goat pox and Enterotoxaemia.
	excepts 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.
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.
excepts the	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.



Manipur Centre, Lamphelpat, Imphal - 795 004





"Gramin Krishi Mausam Seva"

MANIPUR BULLETIN 25th November, 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 26th to 30th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (22nd to 24th November, 2016)

The sky remain clear with no rainfall was recorded during past three days. Maximum temperature range observed was 23.4 to 24.2 o C, range of minimum temperature observed was 7.1 to 7.7 ° C, mean relative humidity observed in morning and afternoon were 91.7 % and 51.7 % respectively. The average wind speed range was 3.0 to 3.5 km/hr. Fog watch:

Visibility observed 200M at Imphal in the morning hours of 25th Nov.

Weather forecast for next five days of Ukhrul (26th to 30th November, 2016)

Likely to have no rain upto Wednesday. Shallow to moderate fog is likely at isolated places during next 3days and mainly clear to partly cloudy during day time with maximum temp. 19-21 °C & minimum temp. 3-4 ° C. Relative humidity may reach upto 98 % (max RH) & 46 % (min RH). The average wind speed may be 3 km/hr. Wind direction may be South Easterly during next five days.

Weather Forecast for next 5 days * upto 0830 hours IST of 30th November 2016

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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. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.

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