

Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 4th November, 2016

Imphal East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 5th to 9th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st} \ to \ 3^{rd} \ November, 2016)$

The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. No rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 $^{\circ}$ C, range of minimum temperature observed was 16.8 to 17.8 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Imphal East (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5th and 6th Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. $26-28\,^{\circ}$ C & minimum temp. $16-18\,^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 98 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Westerly during next five days.

		westerry during flext in	ive days.
Name of the crop	Stage	Pest and disease Ag	gro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting	at isolated places on Saturday % of the spikelet are yellow it	sted after rains as there is likely to have heavy rains y and Sunday. Harvesting of rice may be done if 80 facility for threshing is available.
Groundnut	Maturity to harvesting	Remove pods from plant and	rops under roof/ in shade for 2-3 days for curing. keep the pods free from debris/ damage. Remove Dry it for 4-5 days before storage.
Soybean	Maturity to harvesting	Harvesting may be done straw colour.	after rains when both the pods and plant colour turn
Blackgram	Maturity to harvesting	green.	after rains when the colour of black gram turn dark
Potato	Land preparation and seed tuber collection	 Treat the seeds with Sixe for ½ hour and let it dry i Sowing may be done at a varieties are Kufri Megha hectare. 	red tubers after rains when the soil is relatively dry. or (Carbendazim + Mencozeb) @ 3 gm/lit of water in shed before planting after rain. a spacing of 60cm X 15-20cm. Recommended a and Kufri Jyoti. Seed rate is 25-30 quintals/
Rapeseed/ Mustard	Seed collection	harvesting of rice for eco It may be sown as relay of	ds from reliable sources for sowing after the commic utilization of available soil moisture. cropping (sowing seeds before 2-3 days of or at zero tillage (preferably sandy loam soil with
Lentil	Seed collection		ds from reliable sources for sowing as relay mum tillage.
Field pea	Land preparation & seed collection	 Land preparation for sow Procure good quality see using Bavistin @ 2.5 mg. Seed rate is 80-100kg/ ha 	ving field pea may be started after rain. ds from reliable sources for sowing. Treat seed / lit of water before sowing. a.
Pre-kharif rice seeds	Post harvest management	along with charcoal. Chec	seeds in RC-seed bins after proper drying of seeds ck for moisture content or weight of seeds. After in well ventilated godowns. Spray Malathion 1% in
Horticulture Crops	-		
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	nursery plot due to heavy seedlings also. For raised seedlings, page seedlings) may be done. FYM/ sangam as basal do	ge system to avoid water logging in and around the yrain in forecast. Provisions may be made to protect prepare land for transplanting (26-30 days old Apply 50 kg DAP, 25kg MOP and 10 cart loads of ose followed by 25 kg Urea. seedlings (4 leaves stage) of cole crops after rain m for transplanting.



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Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5
	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
		·	infestation.

Animal Sciences

Protect birds and animals from rain water and cold weather.

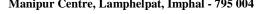
Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. Preventive dose of an antibiotic is suggested.
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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements
			should be made to protect the animals from the onset of the winter.
			De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:		l	counter outed up of numerty.
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow –out/	Management	- Harvesting of grown-up fishes may be done.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid
			escape of fishes if water level of ponds increase due to heavy rainfall.



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"Gramin Krishi Mausam Seva"

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Imphal West

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Weather forecast for next five days of Imphal West (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5th and 6th Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. 25 – 27 ° C & minimum temp. 15 - 17 ° C. Relative humidity may reach upto 100 % (max RH) & 97 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Westerly during next five days.

Name of the crop	Stage	Pest and disease Agro-meteorological advisories
Field Crops		
Main kharif rice	Maturity and harvesting	- Mature crops may be harvested after rains as there is likely to have heavy rains at isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 % of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	 - Harvest mature crop after rains. - Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. Remove pods from plant and keep the pods free from debris/ damage. Remove the soil attached to the pods. Dry it for 4-5 days before storage. - Select good quality pods for seeds.
Soybean	Maturity to harvesting	Harvesting may be done after rains when both the pods and plant colour turn straw colour.
Blackgram	Maturity to harvesting	Harvesting may be done after rains when the colour of black gram turn dark green.
Potato	Land preparation and seed tuber collection	 Prepare land and plant seed tubers after rains when the soil is relatively dry. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain. Sowing 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.
Rapeseed/ Mustard	Seed collection	 Procure good quality seeds from reliable sources for sowing after the harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture). Seed rate is 10kg/ha.
Lentil	Seed collection	 Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Land preparation & seed collection	 Land preparation for sowing field pea may be started after rain. Procure good quality seeds from reliable sources for sowing. Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. Seed rate is 80-100kg/ ha.
Pre-kharif rice seeds	Post harvest management	▶ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops		
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	 Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain when soil moisture is optimum for transplanting.



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Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5
	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
			infestation.

Animal Sciences

Protect birds and animals from rain water and cold weather.

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. Preventive dose of an antibiotic is suggested.
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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.
			Sowing of improved varieties of fodder must be done in this month.
			There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.
			De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:	l	I	1 1
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow –out/		- Harvesting of grown-up fishes may be done.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid
			escape of fishes if water level of ponds increase due to heavy rainfall.



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Bishnupur

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The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. No rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 $^{\circ}$ C, range of minimum temperature observed was 16.8 to 17.8 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Bishnupur (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5th and 6th Nov, 16 then decrease in rainfall activities thereafter. Sky will remain partly cloudy to mainly cloudy with maximum temp. 25 – 27 $^{\circ}$ C & minimum temp. 16 - 18 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 98 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North Westerly during next five days.

Name of the crop	Stage	Pest and disease Agro-meteorological advisories
Field Crops		
Main kharif rice	Maturity and harvesting	- Mature crops may be harvested after rains as there is likely to have heavy rains at isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 % of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	 - Harvest mature crop after rains. - Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. Remove pods from plant and keep the pods free from debris/ damage. Remove the soil attached to the pods. Dry it for 4-5 days before storage. - Select good quality pods for seeds.
Soybean	Maturity to harvesting	Harvesting may be done after rains when both the pods and plant colour turn straw colour.
Blackgram	Maturity to harvesting	Harvesting may be done after rains when the colour of black gram turn dark green.
Potato	Land preparation and seed tuber collection	 Prepare land and plant seed tubers after rains when the soil is relatively dry. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain. Sowing 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.
Rapeseed/ Mustard	Seed collection	 Procure good quality seeds from reliable sources for sowing after the harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture). Seed rate is 10kg/ha.
Lentil	Seed collection	 Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Land preparation & seed collection	 Land preparation for sowing field pea may be started after rain. Procure good quality seeds from reliable sources for sowing. Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. Seed rate is 80-100kg/ ha.
Pre-kharif rice seeds	Post harvest management	▶ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops		
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	 Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain when soil moisture is optimum for transplanting.



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Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	➤ Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5
	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
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Animal Sciences

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		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis.
			Sowing of improved varieties of fodder must be done in this month.
			There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter.
			De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.
Fishery:	l	I	1 1
Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow –out/		- Harvesting of grown-up fishes may be done.

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"Gramin Krishi Mausam Seva"



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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting	a'	Mature crops may be harvested after rains as there is likely to have heavy rains t isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	- R tl	Harvest mature crop after rains. Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. The company the crops under roof from debris damage. Remove the soil attached to the pods. Dry it for 4-5 days before storage. Select good quality pods for seeds.
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Blackgram	Maturity to harvesting		Harvesting may be done after rains when the colour of black gram turn dark green.
Potato	Land preparation and seed tuber collection	 Prepare land and plant seed tubers after rains when the soil is relatively down to the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain. Sowing 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. 	
Rapeseed/ Mustard	Seed collection		 Procure good quality seeds from reliable sources for sowing after the harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture). Seed rate is 10kg/ ha.
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Horticulture Crops	,	1	
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings		 Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain when soil moisture is optimum for transplanting.
Ginger/ Turmeric	Rhizome		Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5



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"Gramin Krishi Mausam Seva"



	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
			infestation.
Animal Sciences			

Animal Sciences

Protect birds and animals from rain water and cold weather.

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). 	
Turkey/ Duck)		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.	
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. 	
~			Preventive dose of an antibiotic is suggested.	
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 excepts the	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, 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.	
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.	
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and	
		care & management	acidosis.	
			Sowing of improved varieties of fodder must be done in this month.	
			There is a change in the weather from this month onwards, hence, due arrangements	
			should be made to protect the animals from the onset of the winter.	
			De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.	

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Type of Farming Stage Management Agro-metrological advisories		Agro-metrological advisories			
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.		
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid		
			escape of fishes if water level of ponds increase due to heavy rainfall.		



Manipur Centre, Lamphelpat, Imphal - 795 004





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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 5th to 9th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st}$ to 3^{rd} November, 2016)

The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. No rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 °C, range of minimum temperature observed was 16.8 to 17.8 °C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Churachandpur (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5th and 6th Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. 25 – 27 ° C & minimum temp. 15 - 17 ° C. Relative humidity may reach upto 100 % (max RH) & 98 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to South-Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories	
Field Crops				
Main kharif rice	Maturity and harvesting	a	- Mature crops may be harvested after rains as there is likely to have heavy rain at isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 % of the spikelet are yellow if facility for threshing is available.	
Groundnut	Maturity to harvesting	- F tl	Harvest mature crop after rains. Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. Remove pods from plant and keep the pods free from debris/ damage. Remove he soil attached to the pods. Dry it for 4-5 days before storage. Select good quality pods for seeds.	
Soybean	Maturity to harvesting		Harvesting may be done after rains when both the pods and plant colour turn straw colour.	
Blackgram	Maturity to harvesting		Harvesting may be done after rains when the colour of black gram turn dark green.	
Potato	Land preparation and seed tuber collection	 Prepare land and plant seed tubers after rains when the soil is relatively dry Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain. Sowing 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. 		
Rapeseed/ Mustard	Seed collection		 Procure good quality seeds from reliable sources for sowing after the harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture). Seed rate is 10kg/ ha. 	
Lentil	Seed collection		 Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage. Seed rate is 40kg/ha. 	
Field pea	Land preparation & seed collection	,	 Land preparation for sowing field pea may be started after rain. Procure good quality seeds from reliable sources for sowing. Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. Seed rate is 80-100kg/ ha. 	
Pre-kharif rice seeds	Post harvest management	 Dry, clean and store the seeds in RC-seed bins after proper drying of seed along with charcoal. Check for moisture content or weight of seeds. Aft proper drying, store grains in well ventilated godowns. Spray Malathion 1% godowns. 		
Horticulture Crops				
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	_	 Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain when soil moisture is optimum for transplanting. 	
Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5)	



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	formation	Spot	g/l) is also recommended after rain.	
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of	
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.	
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or	
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.	
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage	
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe	
			infestation.	

Animal Sciences

Protect birds and animals from rain water and cold weather.

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). 	
Turkey/ Duck)		Deworming	> Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.	
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. 	
Sheep/ Goat	All age groups	Vaccination	 Preventive dose of an antibiotic is suggested. 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 Deworming	 Spray with Skin Heal Spray in sufficient quantity. 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. 	
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.	
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month.	
			There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.	
Fishery:				

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Type of Farming Stage Management Agro-metrological advisories		Agro-metrological advisories			
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.		
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid		
			escape of fishes if water level of ponds increase due to heavy rainfall.		



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Senapati

Ginger/ Turmeric

Rhizome

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 5th to 9th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st} \ to \ 3^{rd} \ November, 2016)$

The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. No rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 $^{\circ}$ C, range of minimum temperature observed was 16.8 to 17.8 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Senapati (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5^{th} and 6^{th} Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. $22-25\,^{\circ}$ C & minimum temp. 12 - $14\,^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 94 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to South-Easterly during next five days.

Apply of Carbendazim @ 0.1% alternately with spraying of Mancozeb (2.5

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
-	Stage	i est and disease	Agi o-meteorologicar advisories
Field Crops Main kharif rice	Maturity and harvesting	at i	lature crops may be harvested after rains as there is likely to have heavy rains solated places on Saturday and Sunday. Harvesting of rice may be done if 80 of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	- H - N Re the	arvest mature crop after rains. Iake bundles and dry the crops under roof/ in shade for 2-3 days for curing. move pods from plant and keep the pods free from debris/ damage. Remove soil attached to the pods. Dry it for 4-5 days before storage. elect good quality pods for seeds.
Soybean	Maturity to harvesting		Harvesting may be done after rains when both the pods and plant colour turn straw colour.
Blackgram	Maturity to harvesting	>	Harvesting may be done after rains when the colour of black gram turn dark green.
Potato	Land preparation and seed tuber collection	> >	Prepare land and plant seed tubers after rains when the soil is relatively dry. Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain. Sowing 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.
Rapeseed/ Mustard	Seed collection		Procure good quality seeds from reliable sources for sowing after the harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture). Seed rate is 10kg/ha.
Lentil	Seed collection	<i>></i>	Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage. Seed rate is 40kg/ha.
Field pea	Land preparation & seed collection	>	Land preparation for sowing field pea may be started after rain. Procure good quality seeds from reliable sources for sowing. Treat seed using Bavistin @ 2.5 mg/ lit of water before sowing. Seed rate is 80-100kg/ ha.
Pre-kharif rice seeds	Post harvest management	1	Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	> - T	Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain en soil moisture is optimum for transplanting.

Leaf blotch & Leaf



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	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and	i	- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
1 0	bearing tree	S	1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
			infestation.
Animal Sciences	5		
Protect birds and	d animals from ra	ain water and cold wear	ther.
Use hessian cloth	h around the shed	ls of birds or animals to	protect them from cold. Also, care should be taken for proper ventilation.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All age groups	Care & management	Proper ventilation must be provided to protect excessive heat during day time.
(Chicken/			Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
			half the dose.
		Management	Cover the wall with hessian cloth/ polysheet during night time.
		-	Prooding house must be kent werm and evoid wet litter meterial

Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). 	
Turkey/ Duck)			 Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose. 	
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. Preventive dose of an antibiotic is suggested. 	
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 	
	James and	Mites infestation Deworming	 ➢ Spray with Skin Heal Spray in sufficient quantity. ➢ 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. 	
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.	
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.	

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Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid
			escape of fishes if water level of ponds increase due to heavy rainfall.



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MANIPUR BULLETIN 4th 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 5th to 9th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(1^{st} \ to \ 3^{rd} \ November, 2016)$

The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. No rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 $^{\circ}$ C, range of minimum temperature observed was 16.8 to 17.8 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Tamenglong (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5^{th} and 6^{th} Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. $26-28\,^{\circ}$ C & minimum temp. $16-18\,^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 97 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to South-Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting	at	Mature crops may be harvested after rains as there is likely to have heavy rains isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	-] Ro th	Harvest mature crop after rains. Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. emove pods from plant and keep the pods free from debris/ damage. Remove e soil attached to the pods. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean	Maturity to harvesting		Harvesting may be done after rains when both the pods and plant colour turn straw colour.
Blackgram	Maturity to harvesting	>	green.
Potato	Land preparation and seed tuber collection		Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain.
Rapeseed/ Mustard	Seed collection	>	harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture).
Lentil	Seed collection		Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage.
Field pea	Land preparation & seed collection	>	Land preparation for sowing field pea may be started after rain.
Pre-kharif rice seeds	Post harvest management	>	Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			-
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	>	Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain then soil moisture is optimum for transplanting.
Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	



Manipur Centre, Lamphelpat, Imphal - 795 004





	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
		·	infestation.
Animal Sciences			

Protect birds and animals from rain water and cold weather.

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. Preventive dose of an antibiotic is suggested.
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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month.
			There is a change in the weather from this month onwards, hence, due arrangements
			should be made to protect the animals from the onset of the winter.
			De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid
			escape of fishes if water level of ponds increase due to heavy rainfall.



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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 5th to 9th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd November, 2016)

The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. **No** rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 °C, range of minimum temperature observed was 16.8 to 17.8 °C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Thoubal (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5^{th} and 6^{th} Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. $26-27\,^{\circ}$ C & minimum temp. $16-17\,^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 98 % (min RH). The average wind speed may be 0-4 km/hr. Wind direction may be Easterly to South-Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting	at	Mature crops may be harvested after rains as there is likely to have heavy rains isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	-] Ro th	Harvest mature crop after rains. Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. emove pods from plant and keep the pods free from debris/ damage. Remove e soil attached to the pods. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean	Maturity to harvesting		Harvesting may be done after rains when both the pods and plant colour turn straw colour.
Blackgram	Maturity to harvesting	>	green.
Potato	Land preparation and seed tuber collection		Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain.
Rapeseed/ Mustard	Seed collection	>	harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture).
Lentil	Seed collection		Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage.
Field pea	Land preparation & seed collection	>	Land preparation for sowing field pea may be started after rain.
Pre-kharif rice seeds	Post harvest management	>	Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	>	Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain hen soil moisture is optimum for transplanting.
Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	



Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and		- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing trees		1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
			infestation.
Animal Sciences			

Animal Sciences

Protect birds and animals from rain water and cold weather.

Use hessian cloth around the sheds of birds or animals to protect them from cold. Also, care should be taken for proper ventilation.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material.
~			Preventive dose of an antibiotic is suggested.
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	Care and management	➤ Mineral mixture be added in feed @10-20 g/adult animal.
			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	B.Q./ H.S/FMD	➤ If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, 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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and
		care & management	acidosis.
			Sowing of improved varieties of fodder must be done in this month.
			There is a change in the weather from this month onwards, hence, due arrangements
			should be made to protect the animals from the onset of the winter.
			De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.

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Type of Farming	Stage	Management	Agro-metrological advisories			
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.			
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid			
			escape of fishes if water level of ponds increase due to heavy rainfall.			



Manipur Centre, Lamphelpat, Imphal - 795 004

"Gramin Krishi Mausam Seva"



MANIPUR BULLETIN 4th 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 5th to 9th November, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (1st to 3rd November, 2016)

The sky remain foggy during morning hours of 1st Nov then mainly clear to partly cloudy thereafter. No rainfall was recorded during past three days. Maximum temperature range observed was 27.7 to 29.5 $^{\circ}$ C, range of minimum temperature observed was 16.8 to 17.8 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 90.33 % and 63.33 % respectively. The average wind speed range was 2.5 to 3.9 km/hr.

Weather forecast for next five days of Ukhrul (5th to 9th November, 2016)

Likely to have heavy rains at isolated places on 5^{th} and 6^{th} Nov, 16 then decrease in rainfall activities thereafter. Sky will remain mainly cloudy to overcast with maximum temp. $22-25\,^{\circ}$ C & minimum temp. $12-14\,^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 86 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly to South-Easterly during next five days.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Maturity and harvesting	at	Mature crops may be harvested after rains as there is likely to have heavy rains isolated places on Saturday and Sunday. Harvesting of rice may be done if 80 of the spikelet are yellow if facility for threshing is available.
Groundnut	Maturity to harvesting	-] Ro th	Harvest mature crop after rains. Make bundles and dry the crops under roof/ in shade for 2-3 days for curing. emove pods from plant and keep the pods free from debris/ damage. Remove e soil attached to the pods. Dry it for 4-5 days before storage. Select good quality pods for seeds.
Soybean	Maturity to harvesting		Harvesting may be done after rains when both the pods and plant colour turn straw colour.
Blackgram	Maturity to harvesting	>	green.
Potato	Land preparation and seed tuber collection		Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 3 gm/lit of water for ½ hour and let it dry in shed before planting after rain.
Rapeseed/ Mustard	Seed collection	>	harvesting of rice for economic utilization of available soil moisture. It may be sown as relay cropping (sowing seeds before 2-3 days of harvesting mature crop) or at zero tillage (preferably sandy loam soil with adequate soil moisture).
Lentil	Seed collection		Procure good quality seeds from reliable sources for sowing as relay cropping or at zero/ minimum tillage.
Field pea	Land preparation & seed collection	>	Land preparation for sowing field pea may be started after rain.
Pre-kharif rice seeds	Post harvest management	>	Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops		,	
Rabi Vegetable (cabbage/ Cauliflower/ knoll-khol/ broccoli/ onion)	Land preparation for nursery to transplanting of raised seedlings	>	 Construct proper drainage system to avoid water logging in and around the nursery plot due to heavy rain in forecast. Provisions may be made to protect seedlings also. For raised seedlings, prepare land for transplanting (26-30 days old seedlings) may be done. Apply 50 kg DAP, 25kg MOP and 10 cart loads of FYM/ sangam as basal dose followed by 25 kg Urea. Transplant 25-30 days old seedlings (4 leaves stage) of cole crops after rain hen soil moisture is optimum for transplanting.
Ginger/ Turmeric	Rhizome	Leaf blotch & Leaf	· · · · · ·



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	formation	Spot	g/l) is also recommended after rain.
Papaya	Planting and	l	- After rain, papaya seedling (15-20 cm in height) can be planted at a distance of
	bearing tree	S	1.8 m X 1.8 m distance in the area where occurrence of frost is not common.
			- For fruiting plants, spray Bavistin (0.1%) after rain at 20 days intervals or
			Mancozeb or Blitox (0.2%) at 10 days interval to prevent diseases.
			- To escape fruit fly attack, harvest the fruits at 1/4th ripening stage. To manage
		Fruit fly	fruit flies, use pheromone traps or spray Dimethoate (0.1%) in case of severe
			infestation.
Animal Sciences			
Protect birds and	l animals from ra	iin water and cold weat	ther.
Use hessian cloth	around the shed	s of birds or animals to	protect them from cold. Also, care should be taken for proper ventilation.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal			
Poultry	All age groups	Care & management	Proper ventilation must be provided to protect excessive heat during day time.
(Chicken/			Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry (Chicken/	All age groups	Care & management	 Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains).
Turkey/ Duck)		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
		Management	 Cover the wall with hessian cloth/ polysheet during night time. Brooding house must be kept warm and avoid wet litter material. Preventive dose of an antibiotic is suggested.
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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/300 kg body weight.
		Care & management	Ensure that the fodder given to animals is mixed with larger quantities of dry fodder at this time. Increase in consumption of green fodder can be used to diarrhoea and acidosis. Sowing of improved varieties of fodder must be done in this month. There is a change in the weather from this month onwards, hence, due arrangements should be made to protect the animals from the onset of the winter. De-wormers and anti-parasitical solutions must be changed over a period of time to counter build up of humidity.

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Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish	Grow -out/		- Harvesting of grown-up fishes may be done.
culture	nurseries		- Encircle with happa net or raise the height of bands around the fish ponds to avoid
			escape of fishes if water level of ponds increase due to heavy rainfall.