

Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 30th August, 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 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (26 th to 29 th August, 2016)

The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Senapati (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 32 -33 $^{\circ}$ C & minimum temp. 22 - 24 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 57 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South West Westerly to Westerly during the next five days.

				1
Name of the crop Stage		Pest and disease Agro-meteorological advisories		
Field Crops		I.	L	
Main kharif rice		Panicle initiation	on	 Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm Drain out excess water due to rains. Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage afte complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm.
			Leaf folder	> Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.
			Blast	> Spray Tricyclazole @ 15gm/ 15 lit water.
			Sheath blight/ sheath rot	 Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
			Case worm	 Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit o water after rains.
			Stem Borer/ Gall midge/Brown Plant Hoppers	Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.
			Any sucking insect	Spray Imidachloprid @ 8ml/ 15 litres of water.
Soybean/ Ground	lnut			Maintain proper drainage system to avoid water logging.
		Pod formation	Tikka disease in groundnut	Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against Tikka disease in groundnut after rain.
			Rust in soybean	> Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
			Hairy Caterpillars	➤ For control of red hairy caterpillars in crops at vegetative stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) after rain.
Storage (seed)				➤ Dry, clean and store the seeds in RC-seed bins after proper drying o 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 vegetables Nursery preparation			Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3 3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Sucl arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.	
Citrus	Nu	rsery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
		own-up trees	•	- If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of wate should be sprayed in the fruit bearing citrus.
Onion		wing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia				Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.



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Orange	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.
Ginger	Rhizome initiation	Shoot borer/ so	
French Bean	Land preparation sowing	to	Field preparation for sowing of French bean for both bush and pole type must be completed by the end of August for sowing. However, water logged areas and too wet soils should be avoided. Raised beds are preferred.
Fruit plants (Mango, Litchi, guava)		nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable sources. Foothills/ hill slope areas are desirable site for establishment of new orchards. Planting material/ nursery must be handled carefully to avoid any damage to the plant and also avoid breakage of earth ball.
Animal Sciences Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal Reep the pren	nicae claan and enr	ay disinfectants to control	mosquitoes
Poultry	All age groups	Care & management	Proper ventilation must be provided to protect excessive heat during day time.
(Chicken/ Turkey/ Duck)	All age groups	Care & management	 Froper ventuation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permangnate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
1 u2110j, 2 u011)		Coccidiosis	 Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem during rainy days. Use quality disinfectants for disinfecting the surrounding of the sheds. 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/lit water.
		Vaccination De-worming	Vaccinate against sheep/ goat pox and Enterotaxaemia. 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.
Cattle	All age groups excepts the young ones	Deworming B.Q./ H.S/FMD	 Give Piperazine liquid @ 10-15ml orally once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, Enterotoxaemia, etc. If the animals are affected 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.
		Endoparasites	De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	 Food supplements may be given @30-50 gm/animals. After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death. Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	 Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.
Fishery:	I	1	/ V-100HH.
Type of Farming	Stage	Management	Agro-metrological advisories
			during heavy rain period.
Carp culture	Fish nurseries	Pond and water	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds Ponds should be free from aquatic weed, predatory insects and fish. Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	 About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



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	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	> Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



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Tamenglong

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Significant past weather for the preceding bi-weekly of	f
Imphal - West (26 th to 29 th August, 2016)	

The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Tamenglong (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 32 -33 $^{\rm o}$ C & minimum temp. 22 - 24 $^{\rm o}$ C. Relative humidity may reach upto 99 % (max RH) & 60 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South South-Westerly to South Westerly during the next five days.

				nve days.
Name of the crop	p	Stage	Pest and diseas	e Agro-meteorological advisories
Field Crops		l .	L	
Main kharif rice		Panicle initiatio	on	 Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm Drain out excess water due to rains. Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm.
			Leaf folder	> Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.
			Blast	➤ Spray Tricyclazole @ 15gm/ 15 lit water.
			Sheath blight/ sheath rot	Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
			Case worm	Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit o water after rains.
			Stem Borer/ Gall midge/Brown Plant Hoppers	Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.
			Any sucking insec	1 1 7
Soybean/ Ground	nut			Maintain proper drainage system to avoid water logging.
		Pod formation	Tikka disease in groundnut	Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against Tikka disease in groundnut after rain.
			Rust in soybean	> Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
			Hairy Caterpillars	➤ For control of red hairy caterpillars in crops at vegetative stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) after rain.
Storage (seed)				Dry, clean and store the seeds in RC-seed bins after proper drying o 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 vegetables Nursery preparation			Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3 3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Sucl arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.	
Citrus	Nu	rsery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
		own-up trees	Powdery mildew	- If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of water should be sprayed in the fruit bearing citrus.
Onion		wing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	7 7		Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.



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Orange	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.
Ginger	Rhizome initiation	Shoot borer/ so	
French Bean	Land preparation sowing	to	Field preparation for sowing of French bean for both bush and pole type must be completed by the end of August for sowing. However, water logged areas and too wet soils should be avoided. Raised beds are preferred.
Fruit plants (Mango, Litchi, guava)		nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable sources. Foothills/ hill slope areas are desirable site for establishment of new orchards. Planting material/ nursery must be handled carefully to avoid any damage to the plant and also avoid breakage of earth ball.
Animal Sciences Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal Reep the pren	nicae claan and enr	ay disinfectants to control	mosquitoes
Poultry	All age groups	Care & management	Proper ventilation must be provided to protect excessive heat during day time.
(Chicken/ Turkey/ Duck)	All age groups	Care & management	 Froper ventuation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permangnate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
1 u2110j, 2 u011)		Coccidiosis	 Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem during rainy days. Use quality disinfectants for disinfecting the surrounding of the sheds. 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/lit water.
		Vaccination De-worming	Vaccinate against sheep/ goat pox and Enterotaxaemia. 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.
Cattle	All age groups excepts the young ones	Deworming B.Q./ H.S/FMD	 Give Piperazine liquid @ 10-15ml orally once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, Enterotoxaemia, etc. If the animals are affected 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.
		Endoparasites	De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	 Food supplements may be given @30-50 gm/animals. After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death. Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	 Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.
Fishery:	I	1	/ V-100HH.
Type of Farming	Stage	Management	Agro-metrological advisories
			during heavy rain period.
Carp culture	Fish nurseries	Pond and water	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds Ponds should be free from aquatic weed, predatory insects and fish. Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	 About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



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	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	> Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



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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 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (26 th to 29 th August, 2016)

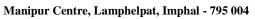
The sky was fair to overcast with 16.5 mm rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Thoubal (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 -34 $^{\circ}$ C & minimum temp. 22 - 24 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 71% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North West-Westerly to North Westerly during the next five days.

Name of the crop		Stage	Pest and dis	isease Agro-meteorological advisories
Field Crops				
Main kharif rice		Panicle initiatio	n Leaf folder	 Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm. Drain out excess water due to rains. Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. ▶ Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.
			Blast	Spray Tricyclazole @ 15gm/ 15 lit water.
			Sheath blight/ sheath rot	7 7 7
			Case worm	 Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit of water after rains.
			Stem Borer/ Gal midge/Brown Pl Hoppers	by a pray coragen of the real water at the early stage of intestation
			Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.
G 1 / G 1	4		Any sucking in	
Soybean/ Groundnut		Pod formation	Tikka disease in groundnut	Tikka disease in groundnut after rain.
			Rust in soybear Hairy Caterpilla	
Storage (seed)				 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				and the second s
Rabi vegetables Nursery preparation			Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.	
Citrus		rsery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Gro	own-up trees	Powdery mildew	- If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of water should be sprayed in the fruit bearing citrus.
Onion		ving/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	tub	getative to Leaf blight per formation		Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Orange	Nur	rsery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days









Cinger	Rhizome	Shoot homan/	interval. Street - Spray Dichlorovos @0.5ml/lit water and Siver (Carbendazim + Mencozeh) @
Ginger	initiation	Shoot borer/ sof	ft rot - Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure.
	Illitiation		- Avoid water logging. Drain out excess water from the field.
French Bean	Land		Field preparation for sowing of French bean for both bush and pole type must be
	preparation	to	completed by the end of August for sowing. However, water logged areas and
	sowing		too wet soils should be avoided. Raised beds are preferred.
Fruit plants	Nursery/ plai	nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava
(Mango, Litchi			from reliable sources.
guava)			Foothills/ hill slope areas are desirable site for establishment of new orchards.
,			Planting material/ nursery must be handled carefully to avoid any damage to the
Animal Science	26		plant and also avoid breakage of earth ball.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	Growen stage	Discuse, intestation	ingro meteorological autibories
 Keep the pres 	mises clean and spr	ay disinfectants to control	mosquitoes.
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 permangnate (few grains)
Turkey/ Duck)			➤ Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	➤ Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be
		Danier '	associated.
		Deworming	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture
Sheep/ Guat	excepts the	Cure & management	problem during rainy days.
	young ones		 Use quality disinfectants for disinfecting the surrounding of the sheds.
	, ,		➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/
			lit water.
		Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		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	Mites infestation	 Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Spray with Skill Flear Spray in sufficient quantity. Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups	Deworming	 Give riperazine inquite wito-15thi otally once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
Cuttic	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, Enterotoxaemia, etc.
	young ones		➤ If the animals are affected 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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
			Food supplements may be given @30-50 gm/animals.
		Care & management	After the birth of the calf the new born must be fed with Colostrum within the first
			two hours. Calves should not be allowed to drink milk from mothers affected by
			FMD, as this can affect their hearts and lead to death.
			 Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.
			 Lemon grass on/ my repenants can be used to keep mes away in the sneds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	Protect from milk fever by giving daily a mixture of calcium and phosphorus @
			70-100ml.
Fishery:			
Type of	Stage	Management	Agro-metrological advisories
Farming	anda with1	t to guaid aga f f: 1	during house wais a paid
* Encircle fish po	Fish nurseries	Pond and water	during heavy rain period. ➤ Water depth should be maintain at 1.0-1.5m
Carp culture	1 ISH HUISCHES	1 Ollu aliu Watel	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds
			 Ponds should be free from aquatic weed, predatory insects and fish.
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		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	About 5 million feeding fries are stocked per 1 ha for pre-nursing pond
			 Duration is 45 to 60 days.



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	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	> Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



Manipur Centre, Lamphelpat, Imphal - 795 004





MANIPUR BULLETIN 30th August, 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 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (26 th to 29 th August, 2016)

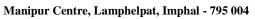
The sky was fair to overcast with 16.5 mm rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Thoubal (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 -34 $^{\circ}$ C & minimum temp. 22 - 24 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 71% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be North West-Westerly to North Westerly during the next five days.

Name of the crop		Stage	Pest and dis	ease Agro-meteorological advisories		
Field Crops						
Main kharif rice		Panicle initiatio	n Leaf folder	 Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm. Drain out excess water due to rains. Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. ▶ Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain. 		
			Blast	Spray Tricyclazole @ 15gm/ 15 lit water.		
			Sheath blight/ sheath rot	7 7 7		
			Case worm	 Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit of water after rains. 		
			Stem Borer/ Gal midge/Brown Pl Hoppers	by a pray coragen of the real water at the early stage of intestation		
			Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.		
G 1 / G 1	4		Any sucking in			
Soybean/ Groundnut		Pod formation	Tikka disease in groundnut	Tikka disease in groundnut after rain.		
			Rust in soybear Hairy Caterpilla			
Storage (seed)				 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				and the second s		
Rabi vegetables				Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.		
Citrus		rsery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.		
	Gro	own-up trees	Powdery mildew	- If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of water should be sprayed in the fruit bearing citrus.		
Onion		ving/ planting		- Sowing of onion in the upland areas may be done.		
Colocassia	tub	getative to er formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.		
Orange	Nur	rsery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days		









Cinger	Rhizome	Shoot homan/	interval. Street - Spray Dichlorovos @0.5ml/lit water and Siver (Carbendazim + Mencozeh) @
Ginger	initiation	Shoot borer/ sof	ft rot - Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure.
	Illitiation		- Avoid water logging. Drain out excess water from the field.
French Bean	Land		Field preparation for sowing of French bean for both bush and pole type must be
	preparation	to	completed by the end of August for sowing. However, water logged areas and
	sowing		too wet soils should be avoided. Raised beds are preferred.
Fruit plants	Nursery/ plai	nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava
(Mango, Litchi			from reliable sources.
guava)			Foothills/ hill slope areas are desirable site for establishment of new orchards.
,			Planting material/ nursery must be handled carefully to avoid any damage to the
Animal Science	26		plant and also avoid breakage of earth ball.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	Growen stage	Discuse, intestation	ingro meteorological autibories
 Keep the pres 	mises clean and spr	ay disinfectants to control	mosquitoes.
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 permangnate (few grains)
Turkey/ Duck)			➤ Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	➤ Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be
		Danier '	associated.
		Deworming	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture
Sheep/ Guat	excepts the	Cure & management	problem during rainy days.
	young ones		 Use quality disinfectants for disinfecting the surrounding of the sheds.
	, ,		➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/
			lit water.
		Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		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	Mites infestation	 Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Spray with Skill Flear Spray in sufficient quantity. Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups	Deworming	 Give riperazine inquite wito-15thi otally once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
Cuttic	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, Enterotoxaemia, etc.
	young ones		➤ If the animals are affected 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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
			Food supplements may be given @30-50 gm/animals.
		Care & management	After the birth of the calf the new born must be fed with Colostrum within the first
			two hours. Calves should not be allowed to drink milk from mothers affected by
			FMD, as this can affect their hearts and lead to death.
			 Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.
			 Lemon grass on/ my repenants can be used to keep mes away in the sneds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	Protect from milk fever by giving daily a mixture of calcium and phosphorus @
			70-100ml.
Fishery:			
Type of	Stage	Management	Agro-metrological advisories
Farming	anda with1	t to guaid aga f f: 1	during house wais a paid
* Encircle fish po	Fish nurseries	Pond and water	during heavy rain period. ➤ Water depth should be maintain at 1.0-1.5m
Carp culture	1 ISH HUISCHES	1 Ollu aliu Watel	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds
			 Ponds should be free from aquatic weed, predatory insects and fish.
			 Fonds should be free from aquatic weed, predatory insects and rish. Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	About 5 million feeding fries are stocked per 1 ha for pre-nursing pond
			 Duration is 45 to 60 days.



Manipur Centre, Lamphelpat, Imphal - 795 004





	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	> Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



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MANIPUR BULLETIN 30th August, 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 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (26 th to 29 th August, 2016)

The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Bishnupur (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 31 -33 $^{\rm o}$ C & minimum temp. 21 - 23 $^{\rm o}$ C. Relative humidity may reach upto 100 % (max RH) & 71 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be South West Westerly to Westerly during the next five days.

Name of the cro	p	Stage		Pest and disease	Aş	gro-meteorological advisories
Field Crops				1		
Main kharif rice		Panicle initiation			ain out excess water du leeding may be done.	Apply 33 kg Urea/ha at panicle initiation stage after ater. Irrigate field after 48 hrs of top dressing and
				Leaf folder	Spray Thiomethoxan	n @ 5 gm/ 15 lit of water after rain.
				Blast	Spray Tricyclazole @	2 15gm/ 15 lit water.
				Sheath blight/ sheath rot	out water from field	
				Case worm	water after rains.	or 3 days or spray Lambdacyhothrin 15 ml/15 lit of
				Stem Borer/ Gall midge/Brown Plant Hoppers	Spray Coragen 3-5 rafter rains.	ml/ 15 lit of water at the early stage of infestation
				Gall midge	dition, apply Fipronil	pronil @ 2g/15 lit water after rains. In severe 3G @ 16kg/ ha of rice.
				Any sucking insect		@ 8ml/ 15 litres of water.
Soybean/ Ground	nut	Pod formation				nage system to avoid water logging.
				Tikka disease in groundnut	Tikka disease in grou	
				Rust in soybean		6WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
				Hairy Caterpillars		iry caterpillars in crops at vegetative stage, dust 5% ha to control it or spray Dichlorovos 76 EC 0.05% after rain.
Storage (seed)				Dry, clean and store eeds along with charc	the seeds in RC-seed bins after proper drying of coal. Check for moisture content or weight of seeds. store grains in well ventilated godowns. Spray	
Horticulture Crops						
Rabi vegetables				de temporary rain she et towards west. Ban ement will be helpful forocure good quality s	of rabi vegetables (cabbage/ cauliflower/ broccoli, lter/ shed upto 5-5.5 feet facing towards east and 3-aboo chatai/ tin sheets may be used for it. Such or good sunlight and also to drain excess water. seeds of garden pea and French bean from reliable	
Citrus		own-up trees	Dow	dery mildew	prevent insect pest info	l/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after estation. in the orchard, then Bayleton @7 g / 15 lit of water
	Gro	own-up trees	POW	dery illidew	be sprayed in the fruit	bearing citrus.
Onion	Sov	ving/ planting				pland areas may be done.
Colocassia		getative to er formation	Leaf	blight	Mancozeb @ 2 g/lit	of water at 7-10 days interval.



Manipur Centre, Lamphelpat, Imphal - 795 004





Orange	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.
Ginger	Rhizome initiation	Shoot borer/ so	
French Bean Land preparation sowing		to	Field preparation for sowing of French bean for both bush and pole type must be completed by the end of August for sowing. However, water logged areas and too wet soils should be avoided. Raised beds are preferred.
Fruit plants (Mango, Litchi, guava)		nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable sources. Foothills/ hill slope areas are desirable site for establishment of new orchards. Planting material/ nursery must be handled carefully to avoid any damage to the plant and also avoid breakage of earth ball.
Animal Sciences Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal Reep the pren	nicae claan and enr	ay disinfectants to control	mosquitoes
Poultry	All age groups	Care & management	Proper ventilation must be provided to protect excessive heat during day time.
(Chicken/ Turkey/ Duck)	All age groups	Care & management	 Froper ventuation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permangnate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
1 u2110j, 2 u011)		Coccidiosis	 Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem during rainy days. Use quality disinfectants for disinfecting the surrounding of the sheds. 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/lit water.
		Vaccination De-worming	Vaccinate against sheep/ goat pox and Enterotaxaemia. 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.
Cattle	All age groups excepts the young ones	Deworming B.Q./ H.S/FMD	 Give Piperazine liquid @ 10-15ml orally once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, Enterotoxaemia, etc. If the animals are affected 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.
		Endoparasites	De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	 Food supplements may be given @30-50 gm/animals. After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death. Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	 Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.
Fishery:	I	1	/ V-100HH.
Type of Farming	Stage	Management	Agro-metrological advisories
			during heavy rain period.
Carp culture	Fish nurseries	Pond and water	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds Ponds should be free from aquatic weed, predatory insects and fish. Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	 About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



Manipur Centre, Lamphelpat, Imphal - 795 004





	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	> Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



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MANIPUR BULLETIN 30th August, 2016

Chandel

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly o	f
Imphal - West (26 th to 29 th August, 2016)	

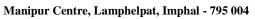
The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Chandel (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to overcast with maximum temp. 31 -32 $^{\circ}$ C & minimum temp. 21 - 23 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 80 % (min RH). The average wind speed may be 3-5 km/hr. Wind direction may be South Westerly to South West Westerly during the next five days.

Name of the crop		Stage	Pest and disea	Agro-meteorological advisories	
Field Crops			•		
Main kharif rice		Panicle initiatio	n	 Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm. Drain out excess water due to rains. Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. 	
			Leaf folder	➤ Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.	
			Blast	➤ Spray Tricyclazole @ 15gm/ 15 lit water.	
			Sheath blight/ sheath rot	Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.	
			Case worm	Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit of water after rains.	
			Stem Borer/ Gall midge/Brown Plan Hoppers	Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.	
			Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.	
G 1 / G 1			Any sucking inse		
Soybean/ Ground	nut	Pod formation	Tikka disease in	 Maintain proper drainage system to avoid water logging. Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against 	
		1 od Torrindron	groundnut	 Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against Tikka disease in groundnut after rain. 	
			Rust in soybean	Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.	
			Hairy Caterpillar	For control of red hairy caterpillars in crops at vegetative stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) after rain.	
Storage (seed)			➤ 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 vegetables				Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.	
Citrus	Nu	rsery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.	
	Gro	own-up trees	Powdery mildew	- If powdery mildew is seen in the orchard, then Bayleton $@7 \text{ g} / 15$ lit of water should be sprayed in the fruit bearing citrus.	
Onion		ving/ planting		- Sowing of onion in the upland areas may be done.	
Colocassia	,	getative to er formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.	
Orange	Nur	rsery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days	









Cinger	Rhizome	Shoot homan/	interval. Street - Spray Dichlorovos @0.5ml/lit water and Siver (Carbendazim + Mencozeh) @
Ginger	initiation	Shoot borer/ sof	ft rot - Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure.
	Illitiation		- Avoid water logging. Drain out excess water from the field.
French Bean	Land		Field preparation for sowing of French bean for both bush and pole type must be
	preparation	to	completed by the end of August for sowing. However, water logged areas and
	sowing		too wet soils should be avoided. Raised beds are preferred.
Fruit plants	Nursery/ plai	nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava
(Mango, Litchi			from reliable sources.
guava)			Foothills/ hill slope areas are desirable site for establishment of new orchards.
,			Planting material/ nursery must be handled carefully to avoid any damage to the
Animal Science	26		plant and also avoid breakage of earth ball.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	Growen stage	Discuse, intestation	ingro meteorological autibories
 Keep the pres 	mises clean and spr	ay disinfectants to control	mosquitoes.
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 permangnate (few grains)
Turkey/ Duck)			➤ Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	➤ Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be
		Danier '	associated.
		Deworming	Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture
Sheep/ Guat	excepts the	Cure & management	problem during rainy days.
	young ones		 Use quality disinfectants for disinfecting the surrounding of the sheds.
	, ,		➤ 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/
			lit water.
		Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		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	Mites infestation	 Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds Spray with Skin Heal Spray in sufficient quantity.
		Deworming	Spray with Skill Flear Spray in sufficient quantity. Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups	Deworming	 Give riperazine inquite wito-15thi otally once only. If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia,
Cuttic	excepts the	B.Q./ H.S/FMD	Foot & Mouth Disease, Enterotoxaemia, etc.
	young ones		➤ If the animals are affected 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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/300 kg body weight.
			Food supplements may be given @30-50 gm/animals.
		Care & management	After the birth of the calf the new born must be fed with Colostrum within the first
			two hours. Calves should not be allowed to drink milk from mothers affected by
			FMD, as this can affect their hearts and lead to death.
			 Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.
			 Lemon grass on/ my repenants can be used to keep mes away in the sneds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	Protect from milk fever by giving daily a mixture of calcium and phosphorus @
			70-100ml.
Fishery:			
Type of	Stage	Management	Agro-metrological advisories
Farming	anda with1	t to guaid aga f f: 1	during house wais a paid
* Encircle fish po	Fish nurseries	Pond and water	during heavy rain period. ➤ Water depth should be maintain at 1.0-1.5m
Carp culture	1 ISH HUISCHES	1 Ollu aliu Watel	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds
			 Ponds should be free from aquatic weed, predatory insects and fish.
			 Fonds should be free from aquatic weed, predatory insects and rish. Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	About 5 million feeding fries are stocked per 1 ha for pre-nursing pond
			 Duration is 45 to 60 days.



Manipur Centre, Lamphelpat, Imphal - 795 004





	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	> Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



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MANIPUR BULLETIN 30th August, 2016

Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly of
Imphal - West (26 th to 29 th August, 2016)

The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Churachandpur (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to overcast with maximum temp. 31 -33 $^{\rm o}$ C & minimum temp. 22 - 24 $^{\rm o}$ C. Relative humidity may reach upto 100 % (max RH) & 80 % (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Southerly to South South-Westerly during the next five days.

Name of the crop)	Stage		Pest and disease	Agro-meteorological advisories
Field Crops				•	·
Main kharif rice		Panicle initiation	on	Leaf folder	 Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm. Drain out excess water due to rains. Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. ▶ Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.
				Blast	➤ Spray Tricyclazole @ 15gm/ 15 lit water.
				Sheath blight/ sheath rot	Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
				Case worm	Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit of water after rains.
				Stem Borer/ Gall midge/Brown Plant Hoppers	Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
				Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.
				Any sucking insect	Spray Imidachloprid @ 8ml/ 15 litres of water.
Soybean/ Groundnut Pod formation				Maintain proper drainage system to avoid water logging.	
		Pod formation		Tikka disease in groundnut	Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against Tikka disease in groundnut after rain.
			_	Rust in soybean Hairy Caterpillars	 Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. For control of red hairy caterpillars in crops at vegetative stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) after rain.
Storage (seed)					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			ı.		
Rabi vegetables		sery paration			Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.
Citrus		rsery			- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Gro	own-up trees	Pow	3	- If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of water should be sprayed in the fruit bearing citrus.
Onion		ving/ planting			- Sowing of onion in the upland areas may be done.
Colocassia		getative to er formation	Leaf	blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Orange	Nur	sery	Leaf	Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days



Manipur Centre, Lamphelpat, Imphal - 795 004





Cinger	Rhizome	Shoot borer/ so	interval. ft rot - Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @
Ginger	initiation	Shoot borer/ so	2g/lit water as curative as well as prophylactic measure.
			- Avoid water logging. Drain out excess water from the field.
French Bean	Land		Field preparation for sowing of French bean for both bush and pole type must be
	preparation sowing	to	completed by the end of August for sowing. However, water logged areas and too wet soils should be avoided. Raised beds are preferred.
Fruit plants Nursery/ plant		nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava
(Mango, Litchi	,		from reliable sources.
guava)			Foothills/ hill slope areas are desirable site for establishment of new orchards. Planting material/ nursery must be handled carefully to avoid any damage to the
			plant and also avoid breakage of earth ball.
Animal Science		T	T
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
		ay disinfectants to control	
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 permangnate (few grains)
Turkey/ Duck)		Coccidiosis	 Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly. Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be
		Coccidiosis	associated.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
			half the dose.
Sheep/ Goat	All age groups	Care & management	➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture
	excepts the		problem during rainy days.
	young ones		 Use quality disinfectants for disinfecting the surrounding of the sheds. 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/
			lit water.
		Vaccination	Vaccinate against sheep/ goat pox and Enterotaxaemia.
		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. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
	young ones	Mites infestation	 Frovide ample venturation in the shed/dry bedding. Avoid dampliess in sheds 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, Enterotoxaemia, etc.
	young ones		Fig. 1. If the animals are affected 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.
		Endoparasites	De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Znaoparasites	Food supplements may be given @30-50 gm/animals.
		Care & management	After the birth of the calf the new born must be fed with Colostrum within the first
			two hours. Calves should not be allowed to drink milk from mothers affected by
			FMD, as this can affect their hearts and lead to death.
			 Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.
			 Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	 Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.
Fishery:			70 100m.
Type of	Stage	Management	Agro-metrological advisories
Farming	124 1	44	Lucio de como contra de la como contra della contra de
* Encircle fish po	Fish nurseries	Pond and water	during heavy rain period. ➤ Water depth should be maintain at 1.0-1.5m
Carp cuitare	1 ion nurseries	1 Ond and water	Agri-lime should be applied in ponds
			 Ponds should be free from aquatic weed, predatory insects and fish.
			Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond
	1	i e	Duration is 45 to 60 days.



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	Grow out	Pond and water	➤ Water depth should be maintain at 1.5-2.0m
			Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	Sampling of fish for growth, disease (if any) should be done by regular
			netting.
			 Partial harvesting of marketable size fishes are also recommended
		Fish	Feed should be provided @ 3-5 % body weight per day
			Feed can be fed at 2 times a day.
	Paddy cum fish	water	Water depth of the field should be maintained.
	culture		> 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.
			> 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.
			Feeding should be done @ 2% body weigh 5t per day.



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MANIPUR BULLETIN 30th August, 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 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly o	f
Imphal - West (26 th to 29 th August, 2016)	

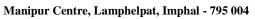
The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 % and 72 % respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Imphal East (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to overcast with maximum temp. 31 -33 $^{\circ}$ C & minimum temp. 22 - 24 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 60 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be North West Westerly to North-Westerly during the next five days.

Field Crops Main kharif rice	Panicle initiati	on		- Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm.
Main kharif rice	Panicle initiati	on		- Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm.
			Leaf folder	Drain out excess water due to rains. - Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. ➤ Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.
			Blast	> Spray Tricyclazole @ 15gm/ 15 lit water.
			Sheath blight/ sheath rot	 Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
			Case worm	> Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit of water after rains.
			Stem Borer/ Gall midge/Brown Plant Hoppers	> Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
			Gall midge	- For gall midge, spray Fipronil @ 2g/15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.
0 1 /0 1			Any sucking insect	> Spray Imidachloprid @ 8ml/ 15 litres of water.
Soybean/ Groundnu	Pod formation	_	m;1 1; ;	Maintain proper drainage system to avoid water logging.
	1 od formation		Tikka disease in groundnut	Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against Tikka disease in groundnut after rain.
		_	Rust in soybean Hairy Caterpillars	 Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval. For control of red hairy caterpillars in crops at vegetative stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) after rain.
Storage (seed)				➤ 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 vegetables	Nursery preparation		- - - - - - - - - - - - - - - - - - -	Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-8.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.
Citrus	Nursery			Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after ain to prevent insect pest infestation.
	Grown-up trees	Powe	dery mildew -	If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of water hould be sprayed in the fruit bearing citrus.
Onion	Sowing/ planting			Sowing of onion in the upland areas may be done.
	Vegetative to tuber formation	Leaf	blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.
Orange	Nursery	Leaf	Miner -	Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days









Cinger	Rhizome	Shoot homan/	interval. Street Spray Dichloroyos @0.5ml/lit water and Siver (Carbendazim + Mencozeh) @
Ginger	initiation	Shoot borer/ sof	ft rot - Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure.
	Initiation		- Avoid water logging. Drain out excess water from the field.
French Bean	Land		Field preparation for sowing of French bean for both bush and pole type must be
	preparation	to	completed by the end of August for sowing. However, water logged areas and
	sowing		too wet soils should be avoided. Raised beds are preferred.
Fruit plants Nursery/ plants		nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava
(Mango, Litchi			from reliable sources.
guava)	<i>'</i>		Foothills/ hill slope areas are desirable site for establishment of new orchards.
,			Planting material/ nursery must be handled carefully to avoid any damage to the
Animal Science	20		plant and also avoid breakage of earth ball.
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	Growth stage	Discuse, intestation	ingro meteorological autisories
Keep the prei	mises clean and spr	ay disinfectants to control	mosquitoes.
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 permangnate (few grains)
Turkey/ Duck)			➤ Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	➤ Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be
			associated.
		Deworming	➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with
			half the dose.
Sheep/ Goat	All age groups	Care & management	➤ Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture
	excepts the		problem during rainy days.
	young ones		Use quality disinfectants for disinfecting the surrounding of the sheds.
			21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/ lit water.
		Vaccination	➤ Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	De-worming of animals should be done using Abendazole/ Levamisole @7.5
		De-worming	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.
1 ig	except the	Care and management	Treat drinking water with potassium permanganate/ sanitizer.
	young ones		 Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds
	7 8	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, Enterotoxaemia, etc.
	young ones		➤ If the animals are affected 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.
		Endoparasites	➤ De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
			Food supplements may be given @30-50 gm/animals.
		Care & management	After the birth of the calf the new born must be fed with Colostrum within the first
			two hours. Calves should not be allowed to drink milk from mothers affected by
			FMD, as this can affect their hearts and lead to death.
			Ensure that the animal sheds remain dry during the monsoon season. Learner grass oil fly repullants can be used to keep flies away in the sheds.
			 Lemon grass oil/ fly repellants can be used to keep flies away in the sheds. Make arrangements to protect animals from heavy rain/ sun/ excessive heat.
		Milk Fever	 Make arrangements to protect animals from neavy rain/ sun/ excessive neat. Protect from milk fever by giving daily a mixture of calcium and phosphorus @
		INTILK L'EVEL	70-100ml.
Fishery:			
Type of	Stage	Management	Agro-metrological advisories
Farming		11 001	
			during heavy rain period.
Carp culture	Fish nurseries	Pond and water	Water depth should be maintain at 1.0-1.5m
			Agri-lime should be applied in ponds Roads should be from equation wood, productory insects and figh
			Ponds should be free from aquatic weed, predatory insects and fish.
		Feed	Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	 About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.
			Duration is 45 to 60 days.



Manipur Centre, Lamphelpat, Imphal - 795 004





	Grow out	Pond and water	Water depth should be maintain at 1.5-2.0m	
			Regular liming should be done @ 30-35 kg/ha at 30 days interval	
		Feed	Sampling of fish for growth, disease (if any) should be done by regular	
			netting.	
			Partial harvesting of marketable size fishes are also recommended	
		Fish	Feed should be provided @ 3-5 % body weight per day	
			Feed can be fed at 2 times a day.	
	Paddy cum fish culture	water	Water depth of the field should be maintained.	
			➤ 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.	
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.	
			Feeding should be done @ 2% body weigh 5t per day.	



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MANIPUR BULLETIN 30th August, 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 27th to 31st August, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West $(26^{th}$ to 29^{th} August, 2016)

The sky was fair to overcast with **16.5 mm** rainfall during past four days. Maximum temperature range observed was 31.3 to 32.2 $^{\circ}$ C, range of minimum temperature observed was 20.6 to 22.9 $^{\circ}$ C, mean relative humidity observed in morning and afternoon were 87.8 $^{\circ}$ and 72 $^{\circ}$ respectively. The average wind speed range was 2.1 to 3.6 km/hr.

Weather forecast for next five days of Imphal West (31st August to 4th September, 2016)

Likely to have light to moderate rainfall upto Sunday. Sky will remain partly cloudy to mainly cloudy with maximum temp. 30 -32 $^{\circ}$ C & minimum temp. 21 - 23 $^{\circ}$ C. Relative humidity may reach upto 99 % (max RH) & 70 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South West Westerly to Westerly during the next five days.

Name of the crop)	Stage		Pest and diseas	e Agro-meteorological advisories
Field Crops	<u> </u>			· I	
Main kharif rice		Panicle initiation	on	Leaf folder	- Bunds/Ridges may be prepared to maintain optimum water level of 5-8cm. Drain out excess water due to rains Weeding may be done. Apply 33 kg Urea/ha at panicle initiation stage after complete drainage of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. > Spray Thiomethoxam @ 5 gm/ 15 lit of water after rain.
				Blast	> Spray Tricyclazole @ 15gm/ 15 lit water.
				Sheath blight/ sheath rot	Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray.
				Case worm	Drain out the field for 3 days or spray Lambdacyhothrin 15 ml/15 lit of water after rains.
				Stem Borer/ Gall midge/Brown Plant Hoppers	Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
				Gall midge	- For gall midge, spray Fipronil @ 2g/ 15 lit water after rains. In severe condition, apply Fipronil 3G @ 16kg/ ha of rice.
				Any sucking insec	
Soybean/ Ground	Soybean/ Groundnut				Maintain proper drainage system to avoid water logging.
		Pod formation		Tikka disease in groundnut	Spray (Mancozeb + Carbendazim) @ 20-30g/15 lit of water against Tikka disease in groundnut after rain.
				Rust in soybean	> Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.
				Hairy Caterpillars	For control of red hairy caterpillars in crops at vegetative stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) after rain.
Storage (seed)					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 vegetables		sery paration			Prepare for raising nurseries of rabi vegetables (cabbage/ cauliflower/ broccoli, etc.) - Provide temporary rain shelter/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards west. Bamboo chatai/ tin sheets may be used for it. Such arrangement will be helpful for good sunlight and also to drain excess water. Also, procure good quality seeds of garden pea and French bean from reliable sources.
Citrus	Nu	rsery			- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Gro	own-up trees	Pow	dery mildew	- If powdery mildew is seen in the orchard, then Bayleton @7 g / 15 lit of water should be sprayed in the fruit bearing citrus.
Onion	Sov	ving/ planting			- Sowing of onion in the upland areas may be done.
Colocassia		getative to er formation	Leaf	blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.



Manipur Centre, Lamphelpat, Imphal - 795 004





Orange	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.
Ginger	Rhizome initiation	Shoot borer/ so	
French Bean	Land preparation sowing	to	Field preparation for sowing of French bean for both bush and pole type must be completed by the end of August for sowing. However, water logged areas and too wet soils should be avoided. Raised beds are preferred.
Fruit plants (Mango, Litchi, guava)		nting	Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable sources. Foothills/ hill slope areas are desirable site for establishment of new orchards. Planting material/ nursery must be handled carefully to avoid any damage to the plant and also avoid breakage of earth ball.
Animal Sciences Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal Reep the pren	nisas claan and snr	ay disinfectants to control	mosquitoes
Poultry	All age groups	Care & management	Proper ventilation must be provided to protect excessive heat during day time.
(Chicken/ Turkey/ Duck)	An age groups	Care & management	 Use water sanitizer in drinking water/potassium permangnate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Turney, Buck)		Coccidiosis	 Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	 Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose.
Sheep/ Goat	All age groups excepts the young ones	Care & management	 Keep the animals on the platform if possible to avoid <i>Pneumonia</i> due to moisture problem during rainy days. Use quality disinfectants for disinfecting the surrounding of the sheds. 21 days after shearing sheep, their bodies should be drenched with Butox @ 2ml/lit water.
		Vaccination De-worming	 Vaccinate against sheep/ goat pox and Enterotaxaemia. De-worming of animals should be done using Abendazole/ Levamisole @7.5
Pig	All age groups except the young ones	Care and management	mg/kg b.wt. or Ivermectin @50mg/kg b. wt. 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, Enterotoxaemia, etc. If the animals are affected 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.
		Endoparasites	De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	 Food supplements may be given @30-50 gm/animals. After the birth of the calf the new born must be fed with Colostrum within the first two hours. Calves should not be allowed to drink milk from mothers affected by FMD, as this can affect their hearts and lead to death. Ensure that the animal sheds remain dry during the monsoon season. Lemon grass oil/ fly repellants can be used to keep flies away in the sheds.
		Milk Fever	 Make arrangements to protect animals from heavy rain/sun/excessive heat. Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.
Fishery:	<u> </u>		/U-1UUIIII.
Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish po			during heavy rain period.
Carp culture	Fish nurseries	Pond and water	 Water depth should be maintain at 1.0-1.5m Agri-lime should be applied in ponds Ponds should be free from aquatic weed, predatory insects and fish. Encircle the pond with net or bamboo mat as a preventive measure for flood.
		Feed	Fish feed should be provided @ 10-15 % body weight per day.
		Fish	➤ About 5 million feeding fries are stocked per 1 ha for pre-nursing pond



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	Grow out	Pond and water	Water depth should be maintain at 1.5-2.0m	
			Regular liming should be done @ 30-35 kg/ha at 30 days interval	
		Feed	Sampling of fish for growth, disease (if any) should be done by regular	
			netting.	
			Partial harvesting of marketable size fishes are also recommended	
		Fish	Feed should be provided @ 3-5 % body weight per day	
			Feed can be fed at 2 times a day.	
	Paddy cum fish culture	water	Water depth of the field should be maintained.	
			➤ 20-40% of the paddy plot can be made as 1.0-1.5m deep trenches.	
			➤ 1000-3000 fish fingerlings can be stocked in 1 hectare rice field.	
			Feeding should be done @ 2% body weigh 5t per day.	