



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

**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 (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 22 - 24 °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.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	Vegetative to tuber formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.



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“Gramin Krishi Mausam Seva”



Orange	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



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“Gramin Krishi Mausam Seva”



	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

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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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 22 - 24 °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.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	Vegetative to tuber formation	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/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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****Thoubal**

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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 °C & minimum temp. 22 - 24 °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 disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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.
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		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 Lambdacythothrin 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.
		Tikka disease in groundnut	➤ Spray (Mancozeb + Carbendazim) @ 20-30g/ 15 lit of water against Tikka disease in groundnut after rain.
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	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	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

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			interval.
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		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

**MANIPUR BULLETIN****30th 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 (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 22 - 24 °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 disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or Dichlorovos @ 0.5ml/lit water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	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

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

			interval.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
▪ Keep the premises clean and spray disinfectants to control mosquitoes.			
Poultry (Chicken/ Turkey/ Duck)	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) ➤ 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 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	➤ 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 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, 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:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes 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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

**MANIPUR BULLETIN****30th 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 (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 21 - 23 °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 crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	Vegetative to tuber formation	Leaf blight	Spray Mancozeb @ 2 g/lit of water at 7-10 days interval.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



Orange	Nursery	Leaf Miner	- Spray Prophenophos + Cypermethrin (Rocket) @2.5 ml/lit of water at 10 days interval.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> If not vaccinated, give vaccine for Black Quarter now, Haemorrhagic septicaemia, Foot & Mouth Disease, Enterotaxaemia, 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.

**ICAR Research Complex for N.E.H. Region**

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

**MANIPUR BULLETIN****30th 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 of Imphal - West (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 21 - 23 °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 disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or Dichlorovos @ 0.5ml/lit water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	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



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



			interval.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @ 1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

**MANIPUR BULLETIN****30th 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 (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 22 - 24 °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		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or Dichlorovos @ 0.5ml/lit water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	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



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



			interval.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @ 1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

**MANIPUR BULLETIN****30th 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 of Imphal - West (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 °C & minimum temp. 22 - 24 °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.

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or Dichlorovos @ 0.5ml/lit water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	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



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



			interval.
Ginger	Rhizome initiation	Shoot borer/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @ 1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> About 5 million feeding fries are stocked per 1 ha for pre-nursing pond Duration is 45 to 60 days.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	Grow out	Pond and water	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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.

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



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

**MANIPUR BULLETIN****30th 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 (26th to 29th 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 °C, range of minimum temperature observed was 20.6 to 22.9 °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 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 °C & minimum temp. 21 - 23 °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 disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Panicle initiation		- 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 Lambdacythrin 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.
		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	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	Nursery		- Spray Imidachloprid @ 2ml/lit of water or <u>Dichlorovos @ 0.5ml/lit</u> water after rain to prevent insect pest infestation.
	Grown-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	Sowing/ planting		- Sowing of onion in the upland areas may be done.
Colocassia	Vegetative to tuber formation	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/ soft rot	- Spray Dichlorovos @0.5ml/lit water and Sixer (Carbendazim + Mencozeb) @ 2g/lit water as curative as well as prophylactic measure. - Avoid water logging. Drain out excess water from the field.
French Bean	Land preparation to sowing		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)	Nursery/ planting		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 animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<ul style="list-style-type: none"> Keep the premises clean and spray disinfectants to control mosquitoes. 			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains) Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
		Coccidiosis	<ul style="list-style-type: none"> Use Amprolium @1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
		Deworming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Vaccinate against sheep/ goat pox and Enterotaxaemia.
		De-worming	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Spray with Skin Heal Spray in sufficient quantity.
		Deworming	<ul style="list-style-type: none"> Give Piperazine liquid @ 10-15ml orally once only.
Cattle	All age groups excepts the young ones	B.Q./ H.S/FMD	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> De-worm orally once using Nilzan-F @ 90ml/ 300 kg body weight.
		Care & management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Protect from milk fever by giving daily a mixture of calcium and phosphorus @ 70-100ml.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
* Encircle fish ponds with nylon net to avoid escape of fishes during heavy rain period.			
Carp culture	Fish nurseries	Pond and water	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Fish feed should be provided @ 10-15 % body weight per day.
		Fish	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none">➤ Water depth should be maintain at 1.5-2.0m➤ Regular liming should be done @ 30-35 kg/ha at 30 days interval
		Feed	<ul style="list-style-type: none">➤ Sampling of fish for growth, disease (if any) should be done by regular netting.➤ Partial harvesting of marketable size fishes are also recommended
		Fish	<ul style="list-style-type: none">➤ Feed should be provided @ 3-5 % body weight per day➤ Feed can be fed at 2 times a day.
	Paddy cum fish culture	water	<ul style="list-style-type: none">➤ 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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