



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



MANIPUR BULLETIN

9th 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 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Bishnupur (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 - 34 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 89 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly to South West Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		<ul style="list-style-type: none"> - One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		<ul style="list-style-type: none"> ➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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

* Drain-out excess water from the crop area.

Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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“Gramin Krishi Mausam Seva”



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		Vaccination	<ul style="list-style-type: none"> ➤ Vaccinate against sheep/ goat pox and Enterotoxaemia.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



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	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

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



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<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Chandel (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 - 33 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 99 % (max RH) & 91 % (min RH). The average wind speed may be 3-4 km/hr. Wind direction may be South Easterly to South West Westerly during the next five days.</p>
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Field Crops			
Main kharif rice	Tillering stage		<ul style="list-style-type: none"> - One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		<ul style="list-style-type: none"> ➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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			
* Drain-out excess water from the crop area.			
Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
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Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
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Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times after rain.
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		Coccidiosis	<ul style="list-style-type: none"> ➤ Use Amprolium @ 1.5g/lit of drinking water for 5-7 days and electrolyte can be associated.
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Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
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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 25-45 days.
	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
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Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
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Horticulture Crops

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		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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(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
9th 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 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Imphal East (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 - 34 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 88 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be North East Easterly to North Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		- One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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

* Drain-out excess water from the crop area.

Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g / lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(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

9th 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 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Imphal West (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 31 - 33 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 86 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be North East Easterly to Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		- One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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			
* Drain-out excess water from the crop area.			
Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(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
9th 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 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Senapati (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 33 - 34 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 99 % (max RH) & 80 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be Easterly to North West Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		<ul style="list-style-type: none"> - One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		<ul style="list-style-type: none"> ➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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			
* Drain-out excess water from the crop area.			
Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(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

9th 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 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Tamenglong (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 - 33 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 99 % (max RH) & 85 % (min RH). The average wind speed may be 2 km/hr. Wind direction may be North East Easterly to South South-Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		<ul style="list-style-type: none"> - One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		<ul style="list-style-type: none"> ➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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			
* Drain-out excess water from the crop area.			
Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g / lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

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



MANIPUR BULLETIN
9th 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 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Thoubal (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 - 33 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 100 % (max RH) & 92 % (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly to North-Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		<ul style="list-style-type: none"> - One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		<ul style="list-style-type: none"> ➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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			
* Drain-out excess water from the crop area.			
Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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



Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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 already done, give vaccine, now for Black Quarter, 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 self the new born must be fed with Colostrum within the first two hours. ➤ 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 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 25-45 days.
	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.



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Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”



	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.
Integrated Fish Farming	Pig		<ul style="list-style-type: none">➤ About 30-40 two months old pigs may be kept for proper fertilization of the one ha pond. Pigs are feed on mash at an average of 1kg/day. Green grasses or animal folder is also provided. Grass with interlocked soil in the root system (sod) is provided once a week to avoid mineral deficiency.
	Duck		<ul style="list-style-type: none">➤ 200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

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MANIPUR BULLETIN
9th August, 2016

Ukhrul

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 10th to 14th August, 2016 as below:

<p>Significant past weather for the preceding bi-weekly of Imphal - West (5th to 8th August, 2016) The sky remained mainly cloudy to overcast but partly cloudy during morning hours of 7th & 8th Aug, 16. 2.7mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2 to 32.0 °C, range of minimum temperature observed was 21.5 to 23.2 °C, mean relative humidity observed in morning and afternoon were 90 % and 74.8 % respectively. The average wind speed range was 3.3 to 4.9 km/hr.</p>	<p>Weather forecast for next five days of Ukhrul (10th to 14th August, 2016) Likely to have light rainfall upto Sunday. Sky will remain mainly cloudy to overcast with maximum temp. 32 - 33 °C & minimum temp. 23 - 24 °C. Relative humidity may reach upto 99 % (max RH) & 85 % (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly to South West Westerly during the next five days.</p>
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Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Tillering stage		<ul style="list-style-type: none"> - One hand weeding may be done after rain at 20-30 days after transplanting. - After rain, drain out the water and apply 33kg of urea/ ha as top dress after 30days of transplanting. Drain in water after 48hrs of top-dressing. - Ridges should be well constructed to maintain water level of 5-8cm.
		Leaf folder	➤ Spray thiomethoxam @ 5 gm/ 15 lit of water after rain.
		Case worm	➤ Drain out the field for 3 days or spray Lambdacythothrin 15 ml/15 lit of water.
		Stem Borer/ Gall midge	➤ Spray Coragen 3-5 ml per 15 lit of water at the early stage of infestation.
Kharif maize	Cob formation to Maturity and Harvesting		<ul style="list-style-type: none"> ➤ Weeding may be done on sunny days to control weeds/ insect-pest. ➤ Maintain proper drainage system to avoid water logging. ➤ Mature cobs may be harvested.
Soybean/ Groundnut	Vegetative		<ul style="list-style-type: none"> ➤ Maintain proper drainage system to avoid water logging ➤ 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.
		Tikka disease in groundnut	➤ Spray Carbendazim @ 0.5g / lit of water to control Tikka disease in groundnut 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			
* Drain-out excess water from the crop area.			
Early Cauliflower	Nursery		- After rain, prepare raised beds for cauliflower nursery also prepare temporary rain shelter to protect it. Proper drainage may be well constructed. Prepare raised nursery beds. Recommended varieties are: White Shot, White Flash and Swetha.
Passion fruit	Fruiting to harvesting	Collar rot	- Spray Redomil MZ-27 WP @ 2.5 g/lit water and drench soil with 1% Bordeaux mixture after rain.
		Anthraxnose	- Spray Carbendazim + Mancozeb @ 1mg/ lit water after rain.
		Fruit fly	- Spray Carbaryl 0.1% or Malathion 0.05% or poison baiting with jaggery + fruit juice+ Malathion (20:20:1) @ 40-50 baits/ ha after rain.
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.
Tree bean	Planting		- Transplant raised nursery in the foot-hills or upland area.
Tomato	Nursery raising		- Nursery raising of off-season tomato may be done under polyhouse.
King Chilli	Fruiting	Fruit rot and aphid	- Spray Redomil Gold @ 2g/lit water + Imidacloprid @ 3ml/10lit of water after rain.
Turmeric/ Ginger	Rhizome formation	Rhizome rot	- To prevent rhizome rot spray Redomil MZ 72 W.P. @ 2 g/ lit of water at 15 days interval for 2-3 times after rain.
			- For grown up plants spray Dithan M45 @ 2 to 2.5 ml/lit of water as prophylactic measures after the rain.



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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<p>Do not let animals to graze in fodder fields now, as at the time of sudden growth in fodder after long submergence presence of cyanide has been found. Keep the premises clean and spray disinfectants to control mosquitoes.</p>			
Poultry (Chicken/ Turkey/ Duck)	All age groups	Care & management	<ul style="list-style-type: none"> ➤ Do not give muddy water as there is chance of <i>colibacillosis</i> during the rainy season. ➤ 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 ➤ Give multivitamins @15ml orally. ➤ 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. Use medicated water for drenching.
		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.
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