



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



MANIPUR BULLETIN

30th September, 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 1st to 5th October, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016)

The sky remain partly cloudy to mainly cloudy. **12.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.

Weather forecast for next five days of Bishnupur (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 30 – 32 °C & minimum temp. 20 - 22 °C. Relative humidity may reach upto 100% (max RH) & 66% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016

Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.

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Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

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



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Weather forecast for next five days of Chandel (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 31 – 33 °C & minimum temp. 21 – 23 °C. Relative humidity may reach upto 99% (max RH) & 76% (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016

Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.



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Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

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Churachandpur

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Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016) The sky remain partly cloudy to mainly cloudy. 12.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.	Weather forecast for next five days of Churachandpur (1st to 5th October, 2016) Likely to have scattered rainfall upto 1 st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 30 – 32 °C & minimum temp. 20 - 22 °C. Relative humidity may reach upto 100% (max RH) & 71% (min RH). The average wind speed may be 2 – 6 km/hr. Wind direction may be Easterly to South Easterly during next five days.
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Weather Outlook for subsequent 2 days from 4th to 6th October 2016
Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.

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Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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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.
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Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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Weather forecast for next five days of Imphal East (1st to 5th October, 2016)

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Rain at a few places very likely over northeast India

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			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

(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

30th September, 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 1st to 5th October, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016)

The sky remain partly cloudy to mainly cloudy. **12.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.

Weather forecast for next five days of Imphal West (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 31 – 32 °C & minimum temp. 21 – 23 °C. Relative humidity may reach upto 100% (max RH) & 55% (min RH). The average wind speed may be 2-4 km/hr. Wind direction may be Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016

Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

(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

30th September, 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 1st to 5th October, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016)

The sky remain partly cloudy to mainly cloudy. **12.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.

Weather forecast for next five days of Senapati (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 28 – 30 °C & minimum temp. 18 - 20 °C. Relative humidity may reach upto 99% (max RH) & 54% (min RH). The average wind speed may be 0 – 4 km/hr. Wind direction may be Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016

Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.



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



Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

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ICAR Research Complex for N.E.H. Region
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“Gramin Krishi Mausam Seva”



MANIPUR BULLETIN
30th September, 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 1st to 5th October, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016)

The sky remain partly cloudy to mainly cloudy. **12.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.

Weather forecast for next five days of Tamenglong (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 32 – 34 °C & minimum temp. 22 - 24 °C. Relative humidity may reach upto 100% (max RH) & 58% (min RH). The average wind speed may be 0-2 km/hr. Wind direction may be Easterly to South Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016
Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
Soybean	Pod filling to Maturity stage	Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
		Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Pre-kharif rice seeds	Post harvest management		➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains.
			➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer.
			➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability.
			➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible.
			➤ For intermittent rain, proper drainage is required.
			➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain.
			➤ Soil drenching and seed treatment is compulsory.
			➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended.
			Renewal of gunny bag as soon as the seed get sprouted is very important.



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



Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

(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 September, 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 1st to 5th October, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016)

The sky remain partly cloudy to mainly cloudy. **12.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.

Weather forecast for next five days of Thoubal (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 31 – 33 °C & minimum temp. 21 – 23 °C. Relative humidity may reach upto 100% (max RH) & 67% (min RH). The average wind speed may be 2-3 km/hr. Wind direction may be South Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016
Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.

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

Manipur Centre, Lamphelpat, Imphal - 795 004

“Gramin Krishi Mausam Seva”

Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

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MANIPUR BULLETIN

30th September, 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 1st to 5th October, 2016 as below:

Significant past weather for the preceding bi-weekly of Imphal - West (27th to 29th September, 2016)

The sky remain partly cloudy to mainly cloudy. **12.2 mm** rainfall was recorded during past three days. Maximum temperature range observed was 31.3 to 31.6 °C, range of minimum temperature observed was 20.8 to 22.6 °C, mean relative humidity observed in morning and afternoon were 91.3 % and 64.0 % respectively. The average wind speed range was 2.3 to 3.2 km/hr.

Weather forecast for next five days of Ukhrul (1st to 5th October, 2016)

Likely to have scattered rainfall upto 1st then fairly widespread rainfall upto Wednesday. Sky will remain partly cloudy to cloudy with maximum temp. 28 – 30 °C & minimum temp. 18 – 20 °C. Relative humidity may reach upto 99% (max RH) & 68% (min RH). The average wind speed may be 2 – 3 km/hr. Wind direction may be Easterly during next five days.

Weather Outlook for subsequent 2 days from 4th to 6th October 2016

Rain at a few places very likely over northeast India

Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Field Crops			
Main kharif rice	Flowering to dough and grain filling stage		Maintain water level of 5-8cm.
		Neck Blast	➤ Spray Tricyclazole @ 15gm/ 15 litre water after rain.
		Sheath blight/ sheath rot/ false smut	➤ Spray Propiconazole @ 15ml/ 15 lit water after rains. Preferably, drain out water from field before the spray. Spray specially on the panicles which cannot emerge due to sheath blight.
		Aphid, mealy bugs	➤ Spray Fipronil @ 2g/15 lit water or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Stem Borer/ Brown Plant Hoppers	➤ Spray Coragen 3-5 ml/ 15 lit of water at the early stage of infestation after rains.
Soybean	Pod filling to Maturity stage	Rust	➤ Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval after rain.
			➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Groundnut	Pod filling to Maturity stage		➤ Keep the plot clean to avoid hairy caterpillar. Maintain proper drainage system to avoid water logging.
Blackgram / rice bean	Flowering to fruiting	Hairy Caterpillars	➤ Dichlorovos 76 EC 0.05% (0.6ml/ lit of water) on dry days.
Pre-kharif rice seeds	Post harvest management		➤ Dry, clean and store the seeds in RC-seed bins after proper drying of seeds along with charcoal. Check for moisture content or weight of seeds. After proper drying, store grains in well ventilated godowns. Spray Malathion 1% in godowns.
Horticulture Crops			
Ginger/ Turmeric	Rhizome formation		➤ Mulch the bed with paddy straw or green leaves especially leguminous plants rich in nitrogen (e.g., leaves of early rice bean in hills) or Acalypha leaves (rich in phosphorus) @ 1-1.25 t/ sangam after rains. ➤ Mulching with leaves of Lantana camera is also useful for controlling shoot borer. ➤ Pour cowdung slurry or liquid manure to ensure microbial activity and nutrient availability. ➤ Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.).
		Leaf blotch & Leaf Spot	➤ Application of Carbendazim @ 0.1% alternately with spraying of Mencozeb (2.5 g/l) is also recommended.
Rabi vegetables	Nursery		➤ Land preparation for Rabi vegetable should be done wherever possible. ➤ For intermittent rain, proper drainage is required. ➤ Make shift arrangement like bamboo mat/polythene sheet/ thatch grass may be used to protect the bed/ seedlings from rain. ➤ Soil drenching and seed treatment is compulsory. ➤ Covering the seed with soil followed by moist gunny bag enhances germination. Line sowing is highly recommended. Renewal of gunny bag as soon as the seed get sprouted is very important.



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Pea	Land preparation to sowing		Early sowing of garden pea variety Arkel is highly recommended.
Mango	Bearing trees		<ul style="list-style-type: none"> ➤ As the new flush has started appearing, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk. ➤ Plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litre cow urine + 2 kg jiggery + 2 kg of pulse grain flour + 1kg of live forest soil in 200 litres of water. Ferment for 5-7 days. Stir the formulation three times a day. Use it for 1 acre with irrigation water.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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).
		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, etc. ➤ If the animals are afflicted by FMD, keep it in a separate enclosure. ➤ Calves should not be allowed to drink milk from mothers if affected by FMD, it affects heart and cause even death of the calves. ➤ The mouth, hooves and udders of diseased animals must be cleaned with 1% solution of Potassium Permanganate.
		Endoparasites	<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.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
Carp/ Catfish culture	Grow –out/ nurseries		<ul style="list-style-type: none"> - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m. - Feeds should be provided 2-3 times a day @ 5-10% body weight per day. - Well balanced feed fortified with vitamins and minerals should be provided. - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha. Maintain good quality of pond water.

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