

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Tamenglong

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Tamenglong (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 27-31 °C & mini. temp. 22-23°C. Relative humidity may reach upto 99 % (max) & 79 % (min). The average wind speed may be 2-3 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



	trees		(PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmatics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Thoubal

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Thoubal (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 27-29 °C & mini. temp. 22-24°C. Relative humidity may reach upto 98 % (max) & 86 % (min). The average wind speed may be 3-4 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



	trees		(PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmatics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Ukhrul

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Ukhrul (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 30-34 °C & mini. temp. 22-23°C. Relative humidity may reach upto 98 % (max) & 83 % (min). The average wind speed may be 3-4 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmintics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Bishnupur

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Bishnupur (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 29-30 °C & mini. temp. 22-24°C. Relative humidity may reach upto 99 % (max) & 89 % (min). The average wind speed may be 2-3 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



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Name of bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
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		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmintics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Chandel

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Chandel (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 30-35 °C & mini. temp. 22-24°C. Relative humidity may reach upto 98 % (max) & 83 % (min). The average wind speed may be 3-4 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



	trees		(PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmatics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Churachandpur

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Churachandpur (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 28-32 °C & mini. temp. 22-24°C. Relative humidity may reach upto 99 % (max) & 90 % (min). The average wind speed may be 2-3 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



	trees		(PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmatics against Facioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Imphal East

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Imphal East (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 29-32 °C & mini. temp. 22-23°C. Relative humidity may reach upto 97 % (max) & 56 % (min). The average wind speed may be 3-4 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



	trees		(PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmatics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019

District: Imphal West

Past weather for the of Imphal West (1st to 3rd October, 2019):

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Imphal West (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 29-32 °C & mini. temp. 22-23°C. Relative humidity may reach upto 97 % (max) & 56 % (min). The average wind speed may be 3-4 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Potato	Land preparation		- Land preparation for planting potato in foothills and upland area may be done after rains. - Procure healthy good quality suitable variety seed tuber from reliable source. Treat tuber seed with Carbendazim @2g/kg seed before sowing.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria



	trees		(PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmatics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

(I. Meghachandra Singh)
Nodal Officer, GKMS

**MANIPUR AGROMET ADVISORY BULLETIN**Date of issue: 4th October, 2019District: *Senapati***Past weather for the of Imphal West (1st to 3rd October, 2019):**

22.3 mm rainfall was observed during the past three days. The skies remained mainly cloudy to overcast. Maximum temperature ranged from 28.3–29.0 °C and minimum of 20.0–21.2 °C. Mean relative humidity of 93.3 % max & 68.7 % min was recorded in the past three days & average wind speed was 1.7–2.6km/ hr.

Weather forecast for Senapati (5th to 9th October, 2019):

Likely to have widespread light rains from Sunday. The sky will remain partly cloudy to mainly cloudy max. temp. 28-30 °C & mini. temp. 23-24°C. Relative humidity may reach upto 99 % (max) & 85 % (min). The average wind speed may be 3 km/hr.

General Advisory:

1. Harvest rain water. Provisions may be made to drain out excess water due to rains in crop field and around the birds/ animals sheds. Avoid inter-culture operations and insect pest control sprays during rainy days.
2. For the fields where rice had failed due to uneven distribution of rainfall during the growing season, cultivation of Blackgram (urad dal)/ Lentil (masoor dal)/ Green gram (moong dal)/ Lathyrus (kachari) may be done as contingency crop by the mid of November so to reduce economic stress of farmers. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.

Field Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Kharif Rice	Dough stage to grain filling		- Maintain water level of 5-8 cm in the crop field. Monitor insect pest infestation. - Weeding may be done. If required gap filling may be done.
		Aphid, mealy bugs	Spray Fipronil @ 2g/15 litres or Imidachloprid 17.8 SL @ 7ml/ 15litres of water.
		Bacterial leaf blight	Spray Streptocycline @ 1g/15 litres of water (at least 5-6 pumps per sangam).
		Neck Blast	- Spray Tricyclazole 75% @ 10g/15 litres of water after rains.
Soybean/ Groundnut/ Rice Bean	Pod formation to maturity		- Monitor insect pest infestation.
Millet/ Blackgram	Vegetative		- Monitor insect pest infestation.
Seed storage	Post-harvest Management		- For seed purpose store the seeds in <i>RC-Seed Bin</i> after proper drying and cleaning of seeds along with dry charcoal at 80:20 w/w ratios. Check for moisture content or weight of charcoal and dry if required.
Horticulture Crops			
Name of the crop	Stage	Pest and disease	Agro-meteorological advisories
Cole Crops/ Onion	Nursery		- Raise nurseries of Cole crops/ onion under low cost poly houses/ temporary rain shelter areas.
Carrot/ Radish/ Coriander	Sowing		<i>Radish/ Carrot/ Coriander</i> may be sown after rains.
Ginger/ Turmeric	Rhizome initiation stage	leaf blotch and leaf spot	- 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 cow-dung slurry or liquid manure to ensure microbial activity and nutrient availability. - Apply of Trichoderma along with bio-fertilizer (Azospirillum, Azotobacter and PSB, etc.). - To prevent occurrence/ spreading of leaf blotch and leaf spot, spray Carbendazim + Mancozeb @ 2g/ litre of water at 7-10 days interval after rains.
Broad bean/ Pea/ French bean	Land preparation/ seed collection to sowing		Prepare land for sowing after rains. Procure healthy disease free seeds for sowing. Treat seeds with Carbendazim @ 2g/ kg seeds before sowing.
Mango	Appearance of new flush in bearing trees		At this stage, apply 50g Urea + 100g DAP + 40g MOP in the soil 1 ½ feet away from the trunk or plant growth promoting rhizobium bacteria (PGPR) or organic formulation like Jivamrut (Mix 10 kg cowdung + 10 litres 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 bird/ animal	Stage	Disease/ Management	Agro-meteorological advisories
Poultry (Chicken/ Duck)	All susceptible age groups	Deworming	- Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.
		Coccidiosis	- As a preventive measure against Coccidiosis, provide Supercox @ 1g/ lit of water. - Give green grasses sufficiently & mix with ground maize/ rice bran.
		Care & management	Proper ventilation must be provided to protect excessive heat during day time. Use water sanitizer in drinking water/potassium permanganate (few grains). Keep the litter dry & add 2 kg lime powder for 100 sq. ft. area and mix it properly.
Pig	Above 3 months of age	Coccidial infection	- Ofloxacin/ Ornidazole (O ₂) tab twice daily for 5 days.
		Endo/ Ecto parasite or skin infection	- Inject Neomac @ 1 ml/ 10 kg body weight.
		Management	- Treat drinking water with potassium permanganate/ sanitizer. Provide ample ventilation in the shed/ dry bedding. Avoid dampness in sheds.
Cattle	Above 3 months of age	Fascioliasis	- De-worming with suitable Anthelmintics against Fascioliasis.
		Deworming	Give Rafoxamide plus Levamisole (Rafox plus)/ Ranizole suspension @ 1ml/ 2kg body weight or 5.5ml/ 10 kg body weight (Ranizole).
		Management	- Provide wholesome water. - Give Amoxyline/ Salbactam or any antibiotic for 5 days.
Goat	All age groups except three months or below	Fascioliasis	- Give Tolzan-F in association with vitamins like Livozyme twice daily.
		Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme daily.
Fishery:			
Carp culture	Nurseries/ grow-out	Pond and water	Maintain minimum depth of 1.0 - 1.5 m and pH at 7.0 – 7.5. Apply Lime @ 25-30kg/ ha every month. Broadcast Green AQ @2 litre/ha by mixing with water.
		Feed	Provide feed 2 times @ 5 % body weight per day. Provide good feed having 30% crude protein fortified with vitamins and mineral.
		Fish	For semi-intensive farming, 8000-10000 fingerlings can be stocked in one hectare pond. - Stocking ratio may be maintained at 40% of surface feeder, 30% column feeder and 30% bottom feeder. - Sampling of fish for growth, disease should be done regularly by netting.
In integrated Fish Farming	Pig		About 30-40 two months old pigs may be kept for fertilization of the one ha fish 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		200-400 ducks of 2-3 months old are sufficient to adequately fertilize a 1 ha pond.

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