



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

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 17th to 21st August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (17th to 21st August, 2013)</u></p> <p>It is likely to have heavy rains upto 17th then light rains upto 21st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 78 %. The average wind speed during next five days may be 2-4 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



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Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

Chandel

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 17th to 21st August, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u>	<u>Weather forecast for next five days of Chandel (17th to 21st August, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.	It is likely to have heavy rains upto 17 th then light rains upto 21 st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 30.0 °C and minimum temp. of 18.0 – 20.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 84 %. The average wind speed during next five days may be 3-4 km/hr.

Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



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Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

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16th August, 2013

Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 17th to 21st August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (17th to 21st August, 2013)</u></p> <p>It is likely to have heavy rains upto 17th then light rains upto 21st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 26.0 - 29.0 °C and minimum temp. of 17.0 – 19.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 76 %. The average wind speed during next five days may be 2-4 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		<ul style="list-style-type: none"> - Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	<ul style="list-style-type: none"> - Weeding may be done from 18th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	<ul style="list-style-type: none"> - Weeding may be done from 18th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	<ul style="list-style-type: none"> - Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	<ul style="list-style-type: none"> - Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



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Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
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		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

Imphal- East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 17th to 21st August, 2013 as given below:

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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



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Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocoptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

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 17th to 21st August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - West (17th to 21st August, 2013)</u></p> <p>It is likely to have heavy rains upto 17th then light rains upto 21st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 30.0 - 32.0 °C and minimum temp. of 22.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 76 %. The average wind speed during next five days may be 2-3 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocoptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

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 17th to 21st August, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u>	<u>Weather forecast for next five days of Senapati (17th to 21st August, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.	It is likely to have heavy rains upto 17 th then light rains upto 21 st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 24.0 - 28.0 °C and minimum temp. of 16.0 – 19.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 80 %. The average wind speed during next five days may be 2-4 km/hr.

Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocoptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

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 17th to 21st August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (17th to 21st August, 2013)</u></p> <p>It is likely to have heavy rains upto 17th then light rains upto 21st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 19.0 – 21.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 76 %. The average wind speed during next five days may be 2 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		<ul style="list-style-type: none"> - Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	<ul style="list-style-type: none"> - Weeding may be done from 18th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	<ul style="list-style-type: none"> - Weeding may be done from 18th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	<ul style="list-style-type: none"> - Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			<ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	<ul style="list-style-type: none"> - Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

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 17th to 21st August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (17th to 21st August, 2013)</u></p> <p>It is likely to have heavy rains upto 17th then light rains upto 21st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 87 %. The average wind speed during next five days may be 2-4 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



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“Integrated Agromet Advisory Services”

Cauliflower	Nursery and transplanting of mid season variety		- Monitor for pest and diseases in nursery of mid season cauliflower. - Prepare for transplanting nursery.
Citrus	For nursery	leaf minor	- Spray <i>Monocrotophos</i> @ 0.25-0.5ml/ lit water depending on the age of nursery.
		leaf eating caterpillar, thrips & mite.	- Spray <i>Confidor</i> @ 0.5 ml/ lit of water.
	For grown up trees	Powdery mildew	Fungicide like <i>Carbendazim</i> and <i>sixer</i> must be applied as prophylactic measures. If powdery mildew is seen in the orchard, then <i>Bayleton</i> @7 g / 15 lit of water should be sprayed in the grown up trees.
Off season tomato & cucumber		Farmers having low cost polyhouse may raise nursery for off-season tomato/ cucumber.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	Fascioliosis	- Administer Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
		Enterotoxaemia	- Vaccinate against Entero-toxaemia.
		Tick	- Use Ex-tick @ 3ml/ lit of water while brushing the animals.
Pig	Above 3 months of age	Helminth parasite	- Administer Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
		Coccidial infection	- Administer Sulpha drug (Sulpha bolous)
Cattle / Buffalo/ Mithun	Above 3 months of age	B.Q.	- Vaccinate against B.Q. @ 2ml sub-cutaneously
		Helminth parasite	- Administer Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Ecto parasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
Poultry	All susceptible age groups	<i>Cnemidocoptes mutans</i> (Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Management	- Since the weather is humid, which is not suitable for poultry birds, regular checking of litter material must be done. Remove wet ones and replace with the dry litter material to prevent any bacterial infection. - Protect birds from rain by using polythene sheets curtains for windows.
Fisheries			
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.
		Feed	Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.

I. Meghachandra Singh
Scientist i/c, IAAS



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

16th August, 2013

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 17th to 21st August, 2013 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal - West (13th to 15th August, 2013)</u>	<u>Weather forecast for next five days of Ukhrul (17th to 21st August, 2013)</u>
During the past three days the sky was mainly cloudy to cloudy. 107.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 27.9 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.7 °C, mean relative humidity observed in morning and afternoon were 92.7 % and 79.7 % respectively. The average wind speed range was 0.9 – 1.0 km/hr.	It is likely to have heavy rains upto 17 th then light rains upto 21 st August. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 23.0 - 27.0 °C and minimum temp. of 14.0 – 18.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 80 %. The average wind speed during next five days may be 2-3 km/hr.

Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over some parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 19th August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Warnings: *Heavy rainfall would occur at isolated places over Manipur on 16th and 17th August.*

Weather Outlook for subsequent 4 days from 19th to 23rd August, 2013: Rain/ thundershowers would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Kharif Tillering and nursery to vegetative (for late sowing)		- Weeding must be done whenever weed population increases. Maintain optimum water level in the rice field. - In case of failure due to submergence, RC Maniphou 7 may be sown as nurseries till 20 th August.
		Case worm, borer, leaf folder, plant hopper	Coragen @3ml/15 lit of water or Lambdacythothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
		Bacterial leaf blight	Streptocycline @ 2g/15 litres of water (at least three pumps per sangam).
		Any sucking insect	Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- Weeding may be done from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water). - Monitor for infestation of Tikka disease. If observed, spray Mancozeb @ 2.6g + Carbendazim @ 1g/litre water at 50 and 60 days after sowing
Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- Sowing may be continued where there is no problem of water logging. - Inter-culture operations may be carried out in vegetative stage from 18 th August onwards. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin, bottle gourd, etc.)	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew, specially in the plants which are planted in sheds. If observed, then spray Bayleton @ 7 gm/ lit of water. To minimum risk of infestation, fungicide must be sprayed as per scheduled time of interval as prophylactic measures. Also, canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.



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