



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 30.0 - 32.0 °C and minimum temp. of 20.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 89 %. The average wind speed during next five days may be 2-6 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 @ 1g/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. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
Cucurbits (sponge gourd,	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew. For minimum risk, fungicide must be sprayed as per scheduled time of interval as



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pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

I. Meghachandra Singh
Scientist i/c, IAAS



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MANIPUR BULLETIN

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 21.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 91 %. The average wind speed during next five days may be 3-5 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 @ 1g/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. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
Cucurbits (sponge gourd,	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew. For minimum risk, fungicide must be sprayed as per scheduled time of interval as



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pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 Any sucking insect	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam). Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
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pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

Animal Sciences

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Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
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20th August, 2013

Imphal-East

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Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - 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).
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	For grown up trees	Powdery mildew	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - West (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 30.0 - 33.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 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 parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 @ 1g/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. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
Cucurbits (sponge gourd,	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew. For minimum risk, fungicide must be sprayed as per scheduled time of interval as



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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 27.0 - 30.0 °C and minimum temp. of 18.0 – 21.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 77 %. 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 parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 @ 1g/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. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
Cucurbits (sponge gourd,	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew. For minimum risk, fungicide must be sprayed as per scheduled time of interval as



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pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 30.0 - 34.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 73 %. 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 parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 Any sucking insect	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam). Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
Cucurbits (sponge gourd,	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew. For minimum risk, fungicide must be sprayed as per scheduled time of interval as



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Manipur Centre, Lamphelpat, Imphal - 795 004**



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pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 30.0 - 33.0 °C and minimum temp. of 21.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 89 %. The average wind speed during next five days may be 2-6 km/hr.</p>
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Main Weather Observations: Cloud imagery at 0530 hours IST shows convective clouds over parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
		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 Any sucking insect	Streptocycline @ 1g/15 litres of water (at least three pumps per sangam). Imidachloprid @ 8ml/ 15 litres of water.
Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - 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. Rogue out all off-types. - 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. - 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			
Cauliflower	Transplanting & vegetative (mid season variety)		- Weeding may be done after rains. Monitor for pests and diseases in cauliflower.
Cucurbits (sponge gourd,	Fruiting to harvesting	Powdery mildew/ Downey mildew	- Monitor for powdery mildew/ downey mildew. For minimum risk, fungicide must be sprayed as per scheduled time of interval as



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pumpkin, bottle gourd, cucumber, etc.)			prophylactic measures - Canopy pruning (removal of unwanted leaves and foliage) may be done for proper aeration and sunshine.
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	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.

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.
		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.

Fisheries

* Encircled ponds with nylon net in order to prevent fish escape during overflow of water at the time of heavy rain.

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. Well balanced fortified feed with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits. 8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
	Nurseries		Apply agri-lime @ 250kg/ha at valley and 300kg at hilly areas. Feeds should be provided 2-3 times a day @ 5-10 body weight per day. 20-30 million spawn can be stock in 1 ha pond for 15 days
Paddy cum fish culture	Water		Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.

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Scientist i/c, IAAS



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MANIPUR BULLETIN

20th 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 21st to 25th August, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16th to 19th August, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 15.4 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.4 – 33.3 °C, range of minimum temperature observed was 21.7 – 22.5 °C, mean relative humidity observed in morning and afternoon were 95.25 % and 70.5 % respectively. The average wind speed range was 0.6 – 2.5 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (21st to 25th August, 2013)</u></p> <p>It is likely to have heavy rains on 21st then light rains upto 25th August. The sky is likely to be partly cloudy to cloudy with maximum temp. of 25.0 - 28.0 °C and minimum temp. of 15.0 – 19.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 83 %. 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 parts of north-eastern states.

Weather Forecast for next 3 days (upto 0830 hours IST of 23rd August, 2013): Rain/thundershowers would occur at many places over north-east.

Weather Outlook for subsequent 4 days from 23rd to 27th 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
All spray must be done when there is likely of having at least 2-3 hrs of no rains.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- Weed out then top dress after 45 days of transplanting with 33 Kg Urea/ ha after draining out water. If line transplanting was done then Weeder may be run.
	Tillering (for late sowing)		- Weeding must be done at 25-30 days after transplanting. Drain out the water and apply 33kg of Urea as top dress.
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Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done. Rogue out all off-types. - 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).
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Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
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