



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Bishnupur (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 28.0 – 31.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 85 %. The average wind speed during next five days may be 0-3 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 litre of water or Lambdacyhothrin @ 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 on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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/ litre 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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

“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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.
	For lactating cow		Provide Osteovet +Vimeral @ 50ml twice daily and mineral mixture like Minamil.
Poultry	All susceptible age groups	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



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MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Chandel (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 28.0 – 33.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 89 %. The average wind speed during next five days may be 3-6 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 litre of water or Lambdacyhothrin @ 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 on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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/ litre 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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

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Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
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Churachandpur

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Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
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Soybean	Vegetative to flowering	Hairy caterpillars	- Weeding may be done on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
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Blackgram/ Rice bean	Sowing to vegetative	Hairy caterpillars	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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

“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
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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-meteorological advisories
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	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
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27th August, 2013

Imphal-East

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Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

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Horticulture Crops

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Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Imphal - West (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 88 %. The average wind speed during next five days may be 2-4 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 litre of water or Lambdacyhothrin @ 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 on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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/ litre 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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



“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Senapati (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 26.0 - 31.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 92 %. The average wind speed during next five days may be 2-4 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 litre of water or Lambdacyhothrin @ 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 on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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/ litre 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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

“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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.
	For lactating cow		Provide Osteovet +Vimeral @ 50ml twice daily and mineral mixture like Minamil.
Poultry	All susceptible age groups	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Tamenglong (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 29.0 - 34.0 °C and minimum temp. of 22.0 – 24.0 °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 3-5 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 litre of water or Lambdacyhothrin @ 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 on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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/ litre 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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

“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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.
	For lactating cow		Provide Osteovet +Vimeral @ 50ml twice daily and mineral mixture like Minamil.
Poultry	All susceptible age groups	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Thoubal (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 29.0 - 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 82 %. The average wind speed during next five days may be 2-4 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 Lambdacyhothrin @ 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 on dry days. 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) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - 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.



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

“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

27th 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 28th August to 1st September, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (23 rd to 26 th August, 2013)	Weather forecast for next five days of Ukhrul (28 th August to 1 st September, 2013)
<p>During the past four days the sky was cloudy during 23rd and 26th and partly cloudy during afternoon 24th & 25th August. 82.1 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.0 – 33.2 °C, range of minimum temperature observed was 21. – 24.1 °C, mean relative humidity observed in morning and afternoon were 94.75 % and 79.0 % respectively. The average wind speed range was 0.8 – 1.4 km/hr.</p>	<p>It is likely to have heavy rain upto 28th then light rains thereafter. The sky is likely to be cloudy upto 28th then partly cloudy to mainly cloudy thereafter with maximum temp. of 24.0 - 29.0 °C and minimum temp. of 16.0 – 20.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 89 %. The average wind speed during next five days may be 2-5 km/hr.</p>

Weather Forecast for next 3 days (upto 0830 hours IST of 30th August, 2013)

Rain/thundershowers would occur at many places over north-east.

Weather Warnings during next 3 days: Heavy rainfall upto 28th August.

Weather Outlook for subsequent 4 days from 31st August to 3rd September, 2013

Rainfall would occur at many places over north-eastern states.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Spray mentioned may be sprayed after the wet spell.			
Field Crops			
Rice	Kharif Panicle Initiation (for normal sowing)		- After 28 th August, 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 litre of water or Lambdacyhothrin @ 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 on dry days. 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/ litre of water) on dry days. - Monitor, if there is rust infestation.
Groundnut	Vegetative to pegging	Hairy caterpillars Tikka disease	- After the wet spell, 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/ litre 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	- After the wet spell, sowing may be continued where there is no problem of water logging. - For control of hairy caterpillars, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ litre of water).
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.



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



“Integrated Agromet Advisory Services”

Horticulture Crops

Rabi Vegetables	Nursery preparation		- Prepare for nursery raising of early rabi vegetables (cabbage/ cauliflower). - Provide temporary rain shelter facility/ shed upto 5-5.5 feet facing towards east and 3-3.5 feet towards the west. Bamboo chatai and tin sheets can be used. Such arrangement will be good for enough sunlight and also to drain out excess water. Also procure good quality seeds of Garden pea and French bean.
Colocassia	Harvesting		Harvest colocassia some days after rains for better quality.
Fruit plants (Mango, Litchi, guava)	Nursery/ planting		Procure seedlings/ planting material of good strains of Mango, Litchi and Guava from reliable source. Select foothills/ hill slope areas for establishment of new orchards. For planting fruit plants, make pits of size 1x1x1 foot.
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.
		Enterotoximia	Vaccinate against Enterotoximia.
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)
		Ectoparasite	- Spraying Butox @ 2ml in 1 lit of water, twice a week.
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.
	For lactating cow		Provide Osteovet +Vimeral @ 50ml twice daily and mineral mixture like Minamil.
Poultry	All susceptible age groups	(Ectoparasites)	- Spray Butox over the flock @ 3ml in 1 lit of water once a week.
		<i>Endoparasite</i>	Deworm with Piperazine Hexahydrate @ 50ml/ 100 birds and accompany Brotone liquid @ 5-10 ml/ 100 birds.
		<i>Coccidiosis</i>	- Poultry must be provided Coximar (@ 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-meteorological advisories
Carp culture	Grow-out	Pond water	Manure pond at 30 days interval. If the colour or odour of pond water changes, then 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.
	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. Avoid insecticide/pesticide on crops.
Cat fish (Ngakra)	Pond and water		Water depth should be maintained at 0.5m -0.8m for nurseries
	Feed		Feed with high protein content 35-40% CP should be given @ 5-8% body weight.