

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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### 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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9**  $\,$  mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2-32.8 °C, range of minimum temperature observed was 20.8-22.8 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 73.3 % respectively. The average wind speed range was 0.3-0.4 km/hr.

Weather forecast for next five days of Senapati (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $27.0-29.0~^{\circ}\text{C}$  & minimum temp.  $17.0~-19.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 99 % (maximum RH) & 84 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Interculture opera	tions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Field Crops			
Kharif Rice	Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
		Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
		Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Soybean	Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water Weeding may be done to avoid hairy caterpillar.
Groundnut	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
D	**	Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
Blackgram Storage	Vegetative	Hairy caterpillar	<ul> <li>Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.</li> <li>Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.</li> </ul>
Horticulture Crops		I	<u> </u>
Tomato	Nursery		- Raise off-season tomato nursery under polyhouses.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red).
Cabbage/ Cauliflower/ Broccoli	Land preparation for transplanting		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>



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Shoot Borer   - If Iarval infestation is observed in shoots then spray Malathion (0.1 %) are monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	Ginger		Rhizome initiation	Rhizome rot/ soft rot	- If yellowing of leaves and water soaked appearance at the pseudostem, apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
Land preparation for sowing of french beam, broad beam and pea may be done. Recommended varieties for French beam are — Pant Anupam. Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.   Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.				Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done	
Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding. Take up measures to reduce flies and mosquitoes population in and aroung the birds/ animals sheds.   Poultry					Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or	
Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.  Take up measures to reduce flies and mosquitoes population in and aroung the birds/ animals sheds.  Poultry  All susceptible age groups (as and when required)  All susceptible age groups (as and when required)  Peach and the provided of the	Animal Sci	ences				
Poultry	Name of the an	nimal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
All susceptible age groups (as and when required)						
Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.		abares to				
Deworming   Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1st day and 10ml on 2st day).	J		groups (as and when		Give Amprolium powder @ 2 g/ lit of drinking water for 7days along	
Management				Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1st day and	
Above 3 months of age (as and when required)   Deworming   Above 3 months of age (as and when required)   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.   Ticks   Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.   Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.				Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter	
Pig Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Deworming - Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.  Ticks Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.  Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.  Cattle / Buffalo/ Mithun age (as and when required)  Fishery:  Type of Stage Management Agro-metrological advisories  Farming Carp/ Grow - catfish out/ murseries - Peds should be provided 2-3 times a day @ 5-10% body weight per day.  Well balanced feed fortified with vitamins and minerals should be provided.  - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.  - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy Water management - Maintained at 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.				Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Bearning  Carp/  Carp/  Carp/  Catfish  Out/  nurseries  Agro-metrological advisories  Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.  - Feeds should be provided 2-3 times a day @ 5-10% body weight per day.  - Well balanced feed fortified with vitamins and minerals should be provided.  - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.  - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Sheep/ Goat	t	age (as and when	Deworming	Give Albendazole liquid.	
Deworming   Deworming   Skin infection   Deworming   Give Albendazole liquid.	Pig		Above 3 months of age (as and when		Ofloxacine tab twice daily for 5 days.	
while brushing the animal.  Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.  Skin infection Apply Himax ointment on the affected portion two times daily.  Deworming Give Albendazole liquid.  Fishery:  Type of Farming Grow — Out/ Out/ Out/ Out/ Out/ Out/ Out/ Out/			required)		ml per adult animal once.	
Sow @ 20g and 20ml resp. in feed.				Ticks	while brushing the animal.	
Deworming   Deworming   Give Albendazole liquid.   Deworming   Give Albendazole liquid.						
Fishery:  Type of Farming  Carp/ Culture  Paddy  Water management  Water management  Paddy  Water management  Fishery:  Grow - Catfish  Out/ - Agro-metrological advisories  - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m Feeds should be provided 2-3 times a day @ 5-10% body weight per day Well balanced feed fortified with vitamins and minerals should be provided Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy  Water management  Water management  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.		alo/		Skin infection	Apply Himax ointment on the affected portion two times daily.	
Stage   Management   Agro-metrological advisories	Mithun		- ·	Deworming	Give Albendazole liquid.	
Carp/ Grow - Out/ Out/ Out/ Out/ Out/ Out/ Out/ Out/						
Catfish out/ nurseries - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m Feeds should be provided 2-3 times a day @ 5-10% body weight per day Well balanced feed fortified with vitamins and minerals should be provided Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy Cum fish culture - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Type of Farming	Stage	Management	Agro-metrological advisories		
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- Well balanced feed fortified with vitamins and minerals should be provided.  - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.  - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy  Water management  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Catfish					
Paddy Water management - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	culture nurseries		ies	<ul> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
	Paddy cum fish	· ·		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil		
	culture					
* Encircle the ponds with nylon/plastic nets in order to prevent escape of fish.	* Encircle th	he ponds	s with nylon/plastic	c nets in order to prever	nt escape of fish.	



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### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### **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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.2-32.8 °C, range of minimum temperature observed was 20.8-22.8 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 73.3 % respectively. The average wind speed range was 0.3-0.4 km/hr.

Weather forecast for next five days of Tamenglong (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $29.0-31.0~^{\circ}\text{C}$  & minimum temp.  $19.0-21.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100~% (maximum RH) & 76 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Stage	Pest and disease infestation	Agro-meteorological advisories
ntions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
	Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/ 15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
	Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	<ul> <li>Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.</li> <li>Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.</li> <li>Weeding may be done to avoid hairy caterpillar.</li> </ul>
Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		- Spray Carbendazim @ 0.5g / lit of water.
Vegetative	Hairy caterpillar	Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.
		- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
1		
Nursery		- Raise off-season tomato nursery under polyhouses.
Nursery		Preparation for raising nursery (variety- Nasik Red).
Land preparation for transplanting		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>
	Tillering to Panicle initiation  Flowering to fruiting and pod formation  Pod formation  Vegetative  Nursery Nursery Land	Tillering to Panicle initiation  Gall midge  Aphid Leaf folder, plant hopper Flowering to fruiting and pod formation Pod formation Pod formation  Tikka disease Vegetative  Nursery Nursery Land preparation for



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		rot	apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
		Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	
	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Sciences				
Name of the animal G1	rowth stage	Disease/ infestation	Agro-meteorological advisories	
			ogging around the sheds as it may help in mosquito breeding. nd aroung the birds/ animals sheds.	
	ll susceptible age	Ranikhet disease	Vaccinate against Ranikhet disease.	
gro	oups (as and when quired)	Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
		Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
ag rec	bove 3 months of the (as and when quired) bove 3 months of the (as and when	Deworming  Coccidial infection	Give Albendazole liquid.  Ofloxacine tab twice daily for 5 days.	
	quired)	(Diarrhea) Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.  Give mineral mixture like Vimicon and Ascagold suspension in pregnant	
			sow @ 20g and 20ml resp. in feed.	
Cattle / Buffalo/ Ab	bove 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
_	e (as and when quired)	Deworming	Give Albendazole liquid.	
Fishery:	/	ı		
Type of Stage Farming	Management	Agro-metrological advisori	ies	
Carp/ Grow -		- Ponds should be free from unwanted vegetation and insects and water depth should be		
Catfish out/		maintained at 1.0-1.5m.		
<b>culture</b> nurseries		<ul> <li>Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
Paddy Water macum fish culture	anagement	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.		



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### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### **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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

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Weather forecast for next five days of Thoubal (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $28.0-30.0~^{\circ}\text{C}$  & minimum temp.  $19.0-20.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100~% (maximum RH) & 89 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Interculture opera	ntions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Field Crops			
Kharif Rice	Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
		Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/ 15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
		Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Soybean	Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	<ul> <li>Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.</li> <li>Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.</li> <li>Weeding may be done to avoid hairy caterpillar.</li> </ul>
Groundnut	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
Blackgram	Vegetative	Hairy caterpillar	Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	·		
Tomato	Nursery		- Raise off-season tomato nursery under polyhouses.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red).
Cabbage/	Land		- Prepare main field for transplanting raised cole crops nurseries.
Cauliflower/ Broccoli	preparation for transplanting		- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.



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Shoot Borer   - If Iarval infestation is observed in shoots then spray Malathion (0.1 %) are monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	Ginger		Rhizome initiation	Rhizome rot/ soft rot	- If yellowing of leaves and water soaked appearance at the pseudostem, apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
Land preparation for sowing of french beam, broad beam and pea may be done. Recommended varieties for French beam are — Pant Anupam. Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.   Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding.				Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done	
Provide clean drinking water to birds and animals. Avoid water logging around the sheds as it may help in mosquito breeding. Take up measures to reduce flies and mosquitoes population in and aroung the birds/ animals sheds.   Poultry					Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or	
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Poultry	Name of the an	nimal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
All susceptible age groups (as and when required)						
Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.		abares to				
Deworming   Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1st day and 10ml on 2st day).	J		groups (as and when		Give Amprolium powder @ 2 g/ lit of drinking water for 7days along	
Management				Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1st day and	
Above 3 months of age (as and when required)   Deworming   Above 3 months of age (as and when required)   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming   Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.   Ticks   Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.   Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.				Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter	
Pig Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Deworming - Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.  Ticks Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.  Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.  Cattle / Buffalo/ Mithun age (as and when required)  Fishery:  Type of Stage Management Agro-metrological advisories  Farming Carp/ Grow - catfish out/ murseries - Peds should be provided 2-3 times a day @ 5-10% body weight per day.  Well balanced feed fortified with vitamins and minerals should be provided.  - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.  - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy Water management - Maintained at 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.				Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Above 3 months of age (as and when required)  Bearning  Carp/  Carp/  Carp/  Catfish  Out/  nurseries  Agro-metrological advisories  Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m.  - Feeds should be provided 2-3 times a day @ 5-10% body weight per day.  - Well balanced feed fortified with vitamins and minerals should be provided.  - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.  - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Sheep/ Goat	t	age (as and when	Deworming	Give Albendazole liquid.	
Deworming   Deworming   Skin infection   Deworming   Give Albendazole liquid.	Pig		Above 3 months of age (as and when		Ofloxacine tab twice daily for 5 days.	
while brushing the animal.  Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.  Skin infection Apply Himax ointment on the affected portion two times daily.  Deworming Give Albendazole liquid.  Fishery:  Type of Farming Grow — Out/ Out/ Out/ Out/ Out/ Out/ Out/ Out/			required)		ml per adult animal once.	
Sow @ 20g and 20ml resp. in feed.				Ticks	while brushing the animal.	
Deworming   Deworming   Give Albendazole liquid.   Deworming   Give Albendazole liquid.						
Fishery:  Type of Farming  Carp/ Culture  Paddy  Water management  Water management  Paddy  Water management  Fishery:  Grow - Catfish  Out/ - Agro-metrological advisories  - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m Feeds should be provided 2-3 times a day @ 5-10% body weight per day Well balanced feed fortified with vitamins and minerals should be provided Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy  Water management  Water management  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.		alo/		Skin infection	Apply Himax ointment on the affected portion two times daily.	
Stage   Management   Agro-metrological advisories	Mithun		- ·	Deworming	Give Albendazole liquid.	
Carp/ Grow - Out/ Out/ Out/ Out/ Out/ Out/ Out/ Out/						
Catfish out/ nurseries - Ponds should be free from unwanted vegetation and insects and water depth should be maintained at 1.0-1.5m Feeds should be provided 2-3 times a day @ 5-10% body weight per day Well balanced feed fortified with vitamins and minerals should be provided Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy Cum fish culture - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Type of Farming	Stage	Management	Agro-metrological advisories		
- Feeds should be provided 2-3 times a day @ 5-10% body weight per day Well balanced feed fortified with vitamins and minerals should be provided Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy Cum fish Culture  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Carp/			· · · · · · · · · · · · · · · · · · ·		
- Well balanced feed fortified with vitamins and minerals should be provided.  - Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.  - 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  Paddy  Water management  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	Catfish					
Paddy Water management - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.	culture nurseries		ies	<ul> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
	Paddy cum fish	· ·		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil		
	culture					
* Encircle the ponds with nylon/plastic nets in order to prevent escape of fish.	* Encircle th	he ponds	s with nylon/plastic	c nets in order to prever	nt escape of fish.	



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### 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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9**  $\,$  mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2-32.8 °C, range of minimum temperature observed was 20.8-22.8 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 73.3 % respectively. The average wind speed range was 0.3-0.4 km/hr.

Weather forecast for next five days of Ukhrul (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $27.0-29.0~^{\circ}\text{C}$  & minimum temp.  $16.0~-18.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 98 % (maximum RH) & 82 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Stage	Pest and disease infestation	Agro-meteorological advisories
ations/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
	Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
	Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water Weeding may be done to avoid hairy caterpillar.
Pod formation	Tikka disease	<ul> <li>Hand weeding should be done to prevent hairy caterpillar and other insect pest.</li> <li>Spray Carbendazim @ 0.5g / lit of water.</li> </ul>
Vegetative		Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.
		- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
S		
Nursery		- Raise off-season tomato nursery under polyhouses.
Nursery		Preparation for raising nursery (variety- Nasik Red).
Land preparation for transplanting		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>
	Tillering to Panicle initiation  Flowering to fruiting and pod formation  Pod formation  Vegetative  Nursery Nursery Land	Tillering to Panicle initiation  Gall midge  Aphid Leaf folder, plant hopper Flowering to fruiting and pod formation Pod formation Pod formation  Tikka disease Vegetative  Nursery Land preparation for



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



Ginger		Rhizome initiation	Rhizome rot/ soft rot	- If yellowing of leaves and water soaked appearance at the pseudostem, apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
			Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	
		Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Scie	ences		·		
Name of the and	imal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
				logging around the sheds as it may help in mosquito breeding. and aroung the birds/ animals sheds.	
Poultry	usures t	All susceptible age	Ranikhet disease	Vaccinate against Ranikhet disease.	
J		groups (as and wher required)		Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
			Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
			Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goat		Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.	
Pig		Above 3 months of age (as and when	Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.	
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
				Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.	
Cattle / Buffa	lo/	Above 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
Mithun		age (as and when required)	Deworming	Give Albendazole liquid.	
Fishery:					
Type of Farming	Stage	Management	Agro-metrological advisories		
Carp/	Grow	Grow – Ponds should be free from unwanted vegetation and insects and water depth should be			
Catfish	out/ maintained at 1.0-1.5m.				
culture	nurseries nurseries		<ul> <li>Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
				ngs/ha can be stocked. Sampling of fish should be done by regular netting.	
Paddy Water management cum fish culture		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.			
	m 1			et cooper of figh	
* Encircle th	e ponds	s with nyton/plastic	c nets in order to preven	u escape oj jisn.	



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### 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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9**  $\,$  mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2-32.8 °C, range of minimum temperature observed was 20.8-22.8 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 73.3 % respectively. The average wind speed range was 0.3-0.4 km/hr.

Weather forecast for next five days of Bishnupur (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $28.0-30.0~^{\circ}\text{C}$  & minimum temp.  $18.0-20.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100~% (maximum RH) & 81~% (minimum RH). The average wind speed may be 0-4~km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories					
Interculture opera	Interculture operations/ weeding, application of fertilizer and spray of insecticides/ pesticides may be done before rains.							
Field Crops								
Kharif Rice	Tillering to Panicle initiation		<ul> <li>Maintain water level of 5-8cm.</li> <li>Weeding may be done before top dressing.</li> <li>Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>					
		Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/ 15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.					
		Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).					
Soybean	Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	<ul> <li>Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.</li> <li>Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.</li> <li>Weeding may be done to avoid hairy caterpillar.</li> </ul>					
Groundnut	Pod formation	Tikka disease	- Hand weeding should be done to prevent hairy caterpillar and other insect pest.					
Blackgram	Vegetative	Hairy caterpillar	- Spray Carbendazim @ 0.5g / lit of water.  Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.					
Storage	vegetative	Trany Caterphian	- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.					
Horticulture Crops	· · · · · · · · · · · · · · · · · · ·		<u> </u>					
Tomato	Nursery		- Raise off-season tomato nursery under polyhouses.					
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red).					
Cabbage/ Cauliflower/ Broccoli	Land preparation for transplanting		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>					



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



Ginger		Rhizome initiation	Rhizome rot/ soft rot	- If yellowing of leaves and water soaked appearance at the pseudostem, apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
			Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	
		Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Scie	ences				
Name of the and	imal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
				logging around the sheds as it may help in mosquito breeding. nd aroung the birds/ animals sheds.	
Poultry	asures to	All susceptible age	Ranikhet disease	Vaccinate against Ranikhet disease.	
1 00101		groups (as and when required)		Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
			Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
			Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goat		Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.	
Pig		Above 3 months of age (as and when	Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.	
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
				Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.	
Cattle / Buffa	lo/	Above 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
Mithun		age (as and when required)	Deworming	Give Albendazole liquid.	
Fishery:					
Type of Farming	Stage	Management	Agro-metrological advisories		
Carp/	Grow	Grow – Ponds should be free from unwanted vegetation and insects and water depth should be			
Catfish	out/ maintained at 1.0-1.5m.				
culture nurseries		ies	<ul> <li>Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
			- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.		
Paddy Water management cum fish culture		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.			
			a mata in and to	et cooper of figh	
* Encircle th	e ponds	s with nyton/plastic	c nets in order to prever	u escape oj jisn.	



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### 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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9**  $\,$  mm rainfall was recorded during past four days. Maximum temperature range observed was 30.2-32.8 °C, range of minimum temperature observed was 20.8-22.8 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 73.3 % respectively. The average wind speed range was 0.3-0.4 km/hr.

Weather forecast for next five days of Chandel (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $29.0-31.0~^{\circ}\text{C}$  & minimum temp.  $20.0-22.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 99 % (maximum RH) & 84 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Interculture opera	tions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Field Crops			
Kharif Rice	Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
		Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
		Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Soybean	Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75% WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water Weeding may be done to avoid hairy caterpillar.
Groundnut	Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
DI I	XX	Tikka disease	- Spray Carbendazim @ 0.5g / lit of water.
Blackgram Storage	Vegetative	Hairy caterpillar	Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.  - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops		I	
Tomato	Nursery		- Raise off-season tomato nursery under polyhouses.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red).
Cabbage/ Cauliflower/ Broccoli	Land preparation for transplanting		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>



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



Ginger		Rhizome initiation	Rhizome rot/ soft rot	- If yellowing of leaves and water soaked appearance at the pseudostem, apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
			Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	
		Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Scie	ences		·		
Name of the ani	imal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
				logging around the sheds as it may help in mosquito breeding. and aroung the birds/ animals sheds.	
Poultry	asures to	All susceptible age	Ranikhet disease	Vaccinate against Ranikhet disease.	
1 odiely		groups (as and when required)		Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
			Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
			Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goat		Above 3 months of age (as and when required)	Deworming	Give Albendazole liquid.	
Pig		Above 3 months of age (as and when	Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.	
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
				Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.	
Cattle / Buffa	lo/	Above 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
Mithun		age (as and when required)	Deworming	Give Albendazole liquid.	
Fishery:					
Type of Farming	Stage	Management	Agro-metrological advisories		
Carp/	Grow	Grow – Ponds should be free from unwanted vegetation and insects and water depth should be			
Catfish	out/ maintained at 1.0-1.5m.				
culture	ulture nurseries		<ul> <li>Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
			- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.		
Paddy Water management cum fish culture		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.			
	m 1			et coope of Cab	
* Encircle th	e ponds	s with nylon/plastic	c nets in order to preven	nt escape of fish.	



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.2-32.8 °C, range of minimum temperature observed was 20.8-22.8 °C, mean relative humidity observed in morning and afternoon were 84.3 % and 73.3 % respectively. The average wind speed range was 0.3-0.4 km/hr.

Weather forecast for next five days of Churachandpur (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $29.0-31.0~^{\circ}\text{C}$  & minimum temp.  $19.0-21.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100~% (maximum RH) & 79 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Interculture opera	ntions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Field Crops			
Kharif Rice	Tillering to Panicle initiation		<ul> <li>Maintain water level of 5-8cm.</li> <li>Weeding may be done before top dressing.</li> <li>Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
		Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/ 15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
		Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Soybean	Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	<ul> <li>Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.</li> <li>Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.</li> <li>Weeding may be done to avoid hairy caterpillar.</li> </ul>
Groundnut	Pod formation	Tikka disease	- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Blackgram	Vegetative	Hairy caterpillar	- Spray Carbendazim @ 0.5g / lit of water.  Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.
Storage	vegetative	Trany caterphia	- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	· !		<u> </u>
Tomato	Nursery		- Raise off-season tomato nursery under polyhouses.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red).
Cabbage/ Cauliflower/ Broccoli	Land preparation for transplanting		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>



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



Ginger		Rhizome initiation	Rhizome rot/ soft rot	- If yellowing of leaves and water soaked appearance at the pseudostem, apply Trichoderma harzianum @ 5-10gm/ litre water to drench the soil or Redomil MZ-72 WP @ 2g/litre of water.	
		Shoot Borer	- If larval infestation is observed in shoots then spray Malathion (0.1%) at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.		
French Bea Broad bear		Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Sc	iences		·		
Name of the a	nimal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
				logging around the sheds as it may help in mosquito breeding.	
	easures to	o reduce flies and m All susceptible age	Ranikhet disease	nd aroung the birds/ animals sheds.	
Poultry		groups (as and when		Vaccinate against Ranikhet disease.	
		required)	Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
			Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
			Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
			Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goa	Above 3 months of age (as and when required)		Deworming	Give Albendazole liquid.	
Pig		Above 3 months of age (as and when	Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.	
		required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
			Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
				Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.	
Cattle / Buff	alo/	Above 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
Mithun		age (as and when required)	Deworming	Give Albendazole liquid.	
Fishery:					
Type of Farming	Stage	Management	Agro-metrological advisor		
Carp/	Grow			from unwanted vegetation and insects and water depth should be	
Catfish	out/		maintained at 1.0-1.5m.		
culture	nurseries		<ul> <li>Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> </ul>		
			- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.		
Dodder	Water	managament		ngs/ha can be stocked. Sampling of fish should be done by regular netting.	
Paddy cum fish culture	Water management		- Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.		
	he nond	s with nylon/plasti	c nets in order to preven	nt escane of fish	
Encurcie	пе рона	s wan nywn/piasii	c neis in order to preven	u escupe of fish.	



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### Imphal-East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was Partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.2-32.8\,^{\circ}\text{C}$ , range of minimum temperature observed was  $20.8-22.8\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were  $84.3\,\%$  and  $73.3\,\%$  respectively. The average wind speed range was  $0.3-0.4\,\text{km/hr}$ .

Weather forecast for next five days of Imphal-East (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $29.0-31.0~^{\circ}\text{C}$  & minimum temp.  $19.0-20.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100~% (maximum RH) & 88 % (minimum RH). The average wind speed may be 0-3 km/hr during next five days.

tions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
		Spray or motorious positioned may be done before funds.
Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
	Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/ 15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
	Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	<ul> <li>Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval.</li> <li>Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.</li> <li>Weeding may be done to avoid hairy caterpillar.</li> </ul>
Pod formation		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
		- Spray Carbendazim @ 0.5g / lit of water.
Vegetative	Hairy caterpillar	Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.
		- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Nursery		- Raise off-season tomato nursery under polyhouses.
Nursery		Preparation for raising nursery (variety- Nasik Red).
Land preparation for		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basal dose.</li> </ul>
	Panicle initiation  Flowering to fruiting and pod formation  Pod formation  Vegetative  Nursery  Nursery  Land	Panicle initiation  Gall midge  Aphid Leaf folder, plant hopper  Flowering to fruiting and pod formation  Pod formation  Tikka disease Vegetative  Hairy caterpillar  Nursery Nursery Land preparation for



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



French Bean, Broad bean & Pea	T1	Shoot Borer	or Redomil MZ-72 WP @ 2g/litre of water.  - If larval infestation is observed in shoots then spray Malathion (0.1%)	
	T 1		at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	
	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Sciences				
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
			logging around the sheds as it may help in mosquito breeding. nd aroung the birds/ animals sheds.	
	All susceptible age	Ranikhet disease	Vaccinate against Ranikhet disease.	
	groups (as and when required)	Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
		Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goat  Above 3 months of age (as and when required)		Deworming	Give Albendazole liquid.	
Pig 2	Above 3 months of age (as and when	Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.	
1	required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.	
Carrier / Daniello/	Above 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
t	age (as and when required)	Deworming	Give Albendazole liquid.	
Fishery:				
Type of Stage Farming	Management	Agro-metrological advisories		
Carp/ Grow –		- Ponds should be free from unwanted vegetation and insects and water depth should be		
Catfish out/		maintained at 1.0-1.5m.		
<b>culture</b> nurserie		<ul> <li>- Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>- Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>- Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
cum fish	nanagement	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.		
culture				
* Encircle the ponds	with nylon/plastic	nets in order to preven	at escape of fish.	



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 2<sup>nd</sup> September, 2014

#### 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 3<sup>rd</sup> to 7<sup>th</sup> September, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (29<sup>th</sup> August to 1<sup>st</sup> September, 2014)

During past four days sky was Partly cloudy to mainly cloudy but mainly clear during morning hours of  $29^{th}$  August. **15.9 mm** rainfall was recorded during past four days. Maximum temperature range observed was  $30.2-32.8\,^{\circ}\text{C}$ , range of minimum temperature observed was  $20.8-22.8\,^{\circ}\text{C}$ , mean relative humidity observed in morning and afternoon were  $84.3\,\%$  and  $73.3\,\%$  respectively. The average wind speed range was  $0.3-0.4\,\text{km/hr}$ .

Weather forecast for next five days of Imphal-West (3<sup>rd</sup> to 7<sup>th</sup> September, 2014)

There may be light to moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of  $29.0-31.0~^{\circ}\text{C}$  & minimum temp.  $19.0-21.0~^{\circ}\text{C}$ . Relative humidity may reach a maximum of 100~% (maximum RH) & 79 % (minimum RH). The average wind speed may be 0-2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Interculture opera	tions/ weeding, appl	ication of fertilizer a	nd spray of insecticides/ pesticides may be done before rains.
Field Crops			
Kharif Rice	Tillering to Panicle initiation		<ul> <li>- Maintain water level of 5-8cm.</li> <li>- Weeding may be done before top dressing.</li> <li>- Apply 33 kg Urea/ha at panicle initiation stage after complete removal of water. Irrigate field after 48 hrs of top dressing and maintain water level at 5-8 cm. If there are insect pest infestations avoid fertilizer application.</li> </ul>
		Gall midge	- If gall midge infestation is observed then drain out water completely and apply the following:  At early stage of gall midge infestation, spray Fipronil @ 2g/15 lit water or Thiomethoxam @ 5g/15 lit of water (i.e., 100g of Thiomethoxam per ha). If it is severe then use Forate @ 4kg per sangam.
		Aphid Leaf folder, plant hopper	Spray Fipronil @ 2g/pump or Imidachloprid 17.8 SL @ 7 ml/ 15 litres.  Spray Coragen @ 3ml/15 lit of water or Lambdacyhothrin @ 15ml/ 15 litre of water (at least three pumps per sangam).
Soybean	Flowering to fruiting and pod formation	- Rust - Hairy caterpillar	- Spray Mancozeb 75%WP @ 1.25 to 2 kg/ ha at 7 to 10 days interval Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water Weeding may be done to avoid hairy caterpillar.
Groundnut	Pod formation	Tikka disease	<ul> <li>Hand weeding should be done to prevent hairy caterpillar and other insect pest.</li> <li>Spray Carbendazim @ 0.5g / lit of water.</li> </ul>
Blackgram	Vegetative	Hairy caterpillar	Spray Chloropyriphos 20 EC @ 2.5 ml/ lit of water.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops	<del></del>		
Tomato	Nursery		- Raise off-season tomato nursery under polyhouses.
Onion	Nursery		Preparation for raising nursery (variety- Nasik Red).
Cabbage/ Cauliflower/	Land preparation for		<ul> <li>- Prepare main field for transplanting raised cole crops nurseries.</li> <li>- Apply 5 tones (10 cart loads) of FYM, 50 kg DAP, 25 Kg MOP as basel does.</li> </ul>
Broccoli	transplanting		basal dose.



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



French Bean, Broad bean & Pea	T1	Shoot Borer	or Redomil MZ-72 WP @ 2g/litre of water.  - If larval infestation is observed in shoots then spray Malathion (0.1%)	
	T 1		at monthly interval. Pruning of freshly infested shoots may also be done at 15 days interval.	
	Land preparation		Land preparation for sowing of french bean, broad bean and pea may be done. Recommended varieties for French bean are – Pant Anupam, Anupam (to be planted at a spacing of 30cm x 45cm) and Tangkhul Hawai (local) (to be planted at a spacing of 30cm x 60cm with 2-3 seeds per hill). For broad bean, plant local variety at a spacing of 30cm x 45cm. And for pea, Arkel or Azad may be planted at a spacing of 10 cm x 30cm.	
Animal Sciences				
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories	
			logging around the sheds as it may help in mosquito breeding. nd aroung the birds/ animals sheds.	
	All susceptible age	Ranikhet disease	Vaccinate against Ranikhet disease.	
	groups (as and when required)	Coccidiosis	Give Amprolium powder @ 2 g/ lit of drinking water for 7days along with glucose.	
		Deworming	Give Piperazine liquid @ 40 for 100 adult birds (30ml on 1 <sup>st</sup> day and 10ml on 2 <sup>nd</sup> day).	
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.	
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.	
Sheep/ Goat  Above 3 months of age (as and when required)		Deworming	Give Albendazole liquid.	
Pig 2	Above 3 months of age (as and when	Coccidial infection (Diarrhea)	Ofloxacine tab twice daily for 5 days.	
1	required)	Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.	
		Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.	
			Give mineral mixture like Vimicon and Ascagold suspension in pregnant sow @ 20g and 20ml resp. in feed.	
Carrier / Daniello/	Above 3 months of	Skin infection	Apply Himax ointment on the affected portion two times daily.	
t	age (as and when required)	Deworming	Give Albendazole liquid.	
Fishery:				
Type of Stage Farming	Management	Agro-metrological advisories		
Carp/ Grow –		- Ponds should be free from unwanted vegetation and insects and water depth should be		
Catfish out/		maintained at 1.0-1.5m.		
<b>culture</b> nurserie		<ul> <li>Feeds should be provided 2-3 times a day @ 5-10% body weight per day.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided.</li> <li>Apply Green AQ @ 4litre/ ha or lime @ 200kg/ ha.</li> </ul>		
cum fish	nanagement	- 8000-10,000 fingerlings/ha can be stocked. Sampling of fish should be done by regular netting.  - Maintained 1.0 m water depth of the trenches in paddy field. Provide rice bran and mustard oil cake (1:1) as supplementary feed. Avoid insecticide/pesticide application.		
culture				
* Encircle the ponds	with nylon/plastic	nets in order to preven	at escape of fish.	