

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



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Bishnupur (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of  $24.0 - 28.0\,^{\circ}\text{C}$  and minimum temp. of  $20.0 - 21.0\,^{\circ}\text{C}$ . The maximum RH is likely to remain above 89 % and minimum RH is likely to be nearly 76 % on  $29^{\text{th}}$  June. The average wind speed during next five days may reach upto max. value of  $2\,\text{km/hr}$ .

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	<u>'</u>		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	pps		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Science	es		100 00000000000000000000000000000000000
		drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below		Himax ointment twice daily.
		Hump sore	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
			- Muddy water should not be given to animals as soil borne diseases like Black
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
1 outly			- Vaccinate against pox.
		Pox	- Vaccinate against pox.  - Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
		M	- Administer 50ml calcicare for 100 birds in drinking water.
		Management	<ul><li>- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li><li>- Cover side walls of poultry sheds with polythene sheet to protect from rain.</li></ul>
Fisheries	<u> </u>		- Cover side wans or pountry sneds with porythene sneet to protect from rain.
T Hucircle nond	with hanna to avoid	fish escape from none	d if over flow of water occurs due to heavy rains
* Encircle pond Type of Farming			d if over flow of water occurs due to heavy rains  Agro-metrological advisories
Type of Farming	Stage	Management	Agro-metrological advisories
			Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agri-
Type of Farming	Stage	Management Pond water	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.
Type of Farming	Stage	Management Pond water Feed	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.  @5-10% body weight/day in 2-3 splits.
Type of Farming	Stage Nurseries	Management Pond water Feed Fish numbers	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.  @5-10% body weight/day in 2-3 splits.  20-30 million spawn per hectare.
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Type of Farming  Carp culture  Paddy cum	Stage Nurseries	Management Pond water  Feed Fish numbers Pond water  Feed	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.  @5-10% body weight/day in 2-3 splits.  20-30 million spawn per hectare.  Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.  Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.  8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.  Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
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Type of Farming  Carp culture  Paddy cum fish culture	Stage Nurseries Grow-out Water	Management Pond water  Feed Fish numbers Pond water  Feed	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.  @5-10% body weight/day in 2-3 splits.  20-30 million spawn per hectare.  Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.  Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.  8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.  Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed.  Do not apply insecticide or pesticide in paddy cum fish culture practice.
Type of Farming  Carp culture  Paddy cum fish culture  Cat fish	Nurseries Grow-out	Management Pond water  Feed Fish numbers Pond water  Feed	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.  @5-10% body weight/day in 2-3 splits.  20-30 million spawn per hectare.  Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.  Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.  8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.  Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed.  Do not apply insecticide or pesticide in paddy cum fish culture practice.  Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
Type of Farming  Carp culture  Paddy cum fish culture	Stage Nurseries Grow-out Water	Management Pond water  Feed Fish numbers Pond water  Feed	Agro-metrological advisories  Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.  @5-10% body weight/day in 2-3 splits.  20-30 million spawn per hectare.  Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with the fresh water.  Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day in 2-3 splits.  8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.  Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed.  Do not apply insecticide or pesticide in paddy cum fish culture practice.



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#### "Integrated Agromet Advisory Services"

# MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Chandel (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 28.0 °C and minimum temp. of 20.0 – 21.0 °C. The maximum RH is likely to remain above 90 % and minimum RH is is likely to be nearly 81 % on  $29^{\rm th}$  June. The average wind speed during next five days may reach upto max. value of 5 km/hr.

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ops		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Scienc	es		100 100 100 100 100 100 100 100 100 100
		drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below		Himax ointment twice daily.
		Hump sore	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
			- Muddy water should not be given to animals as soil borne diseases like Black
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with
D 1/	A 11 1	G 17: 1	Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Pox	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
			- Administer 50ml calcicare for 100 birds in drinking water.
		Management	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.
T. 1			- Cover side walls of poultry sheds with polythene sheet to protect from rain.
Fisheries			
* Encircle pond Type of Farming	Stage	fish escape from pone Management	d if over flow of water occurs due to heavy rains  Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agri-
curp curture	Transcricts	1 one water	lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or
	Grow-out	1 ond water	odour of pond water changes, then drain out half of pond water and replace with
			the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @
		1 ccu	3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
		1 1511 1101110015	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum	Water	1	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
fish culture	11 atc1		cake (1:1) can be provided as supplementary feed.
11511 CUITUIE			Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
(Ngakra)	1 Ond water		800kg/ha at 15 days interval as manure.
(11gania)	Feed		Feed with high protein content 35-40% CP feed @ 5-8% body weight.
	Fish numbers		8000-10000 fingerlings can be stocked in 1 ha
	rish humbers		6000-10000 migerings can be stocked in 1 ma



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#### MANIPUR BULLETIN 28<sup>th</sup> June, 2013

#### Churachandpur

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Weather forecast for next five days of Churachandpur (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 25.0 - 29.0 °C and minimum temp. of 21.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 96 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.

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Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ops		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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



Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Scienc	es		100 100 100 100 100 100 100 100 100 100
		drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with Swine Fever vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below		Himax ointment twice daily.
		Hump sore	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
			- Muddy water should not be given to animals as soil borne diseases like Black
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with
D 14	All susceptible age groups	C	Minamil powder @ 10-25g once daily for Milch cow.
Poultry		Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Pox	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
			- Administer 50ml calcicare for 100 birds in drinking water.
		Management	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.
Fisheries			- Cover side walls of poultry sheds with polythene sheet to protect from rain.
	with hanna to avoid	I fish ascana from non	d if over flow of water occurs due to heavy rains
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agri-
curp curtare	rearbories	1 one water	lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or
	Glow-out	1 ond water	odour of pond water changes, then drain out half of pond water and replace with
			the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @
		1 ccu	3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
		1 1511 1101110015	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum	Water	1	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
fish culture	11 4101		cake (1:1) can be provided as supplementary feed.
11511 Cultule			Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
(Ngakra)	1 Ond water		800kg/ha at 15 days interval as manure.
(11gania)	Feed		Feed with high protein content 35-40% CP feed @ 5-8% body weight.
	Fish numbers		8000-10000 fingerlings can be stocked in 1 ha
	1 ISH Hullibers		5000-10000 migerings can be stocked in 1 ma



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



#### "Integrated Agromet Advisory Services"

# MANIPUR BULLETIN 28<sup>th</sup> June, 2013

#### Imphal-East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Imphal - East (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be cloudy with maximum temp. of 27.0 - 28.0  $^{\circ}\text{C}$  and minimum temp. of 19.0 – 21.0  $^{\circ}\text{C}$ . The maximum RH is likely to remain above 90 % and minimum RH is is likely to be nearly 70 % on 29th June. The average wind speed during next five days may reach upto max. value of 2 km/hr.

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>- Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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





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



#### "Integrated Agromet Advisory Services"

# MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Imphal - West (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of  $24.0 - 28.0\,^{\circ}\text{C}$  and minimum temp. of  $20.0 - 22.0\,^{\circ}\text{C}$ . The maximum RH is likely to attain max of 99 % and minimum RH of 94 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low /medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	pps		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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



Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Scienc	es		100 00000000000000000000000000000000000
		drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below		Himax ointment twice daily.
	months of celow	Hump sore	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
			- Muddy water should not be given to animals as soil borne diseases like Black
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with
			Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Pox	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
			- Administer 50ml calcicare for 100 birds in drinking water.
		Management	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.
		171umagement	- Cover side walls of poultry sheds with polythene sheet to protect from rain.
Fisheries	1	1	
* Encircle pond	with happa to avoid	l fish escape from pond	d if over flow of water occurs due to heavy rains
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agri-
•			lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or
	Grow out	I one water	odour of pond water changes, then drain out half of pond water and replace with
			the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @
		1 000	3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
		1 1511 1101110015	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
fish culture	11 4101		cake (1:1) can be provided as supplementary feed.
11511 CUITUIE			Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
	rong water		
(Ngakra)	Food		800kg/ha at 15 days interval as manure.
	Feed Fish numbers		Feed with high protein content 35-40% CP feed @ 5-8% body weight.  8000-10000 fingerlings can be stocked in 1 ha



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



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Senapati (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 22.0 - 28.0 °C and minimum temp. of 19.0 – 20.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 95 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ops		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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



Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/		Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Science	es		to avoid water logging of submergence of crops.
		drinking water for anin	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months of age	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months of age	- Swine Fever	<ul> <li>Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm using Panacur tab @ 1.5mg/10kg body weight before vaccination.</li> <li>For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.</li> </ul>
Cattle / Buffalo/ Mithun	All age groups except three months or below	Hump sore	<ul> <li>- Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.</li> <li>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.</li> <li>- Muddy water should not be given to animals as soil borne diseases like Black Quarter/ Black Leg outbreak may occur.</li> <li>- Osteovet susp. @50ml must be added in feed/ water twice daily along with</li> </ul>
			Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		Pox	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
			- Administer 50ml calcicare for 100 birds in drinking water.
		Management	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.
			- Cover side walls of poultry sheds with polythene sheet to protect from rain.
Fisheries			
	with happa to avoid		d if over flow of water occurs due to heavy rains
Type of Farming	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or odour of pond water changes, then drain out half of pond water and replace with
		Feed	the fresh water.  Well balanced feed fortified with vitamins and minerals should be provided @
		Ti i	3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
P 11	***		Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
fish culture			cake (1:1) can be provided as supplementary feed.
			Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
			800kg/ha at 15 days interval as manure.
(Ngakra)			
(Ngakra)	Feed Fish numbers		Feed with high protein content 35-40% CP feed @ 5-8% body weight.  8000-10000 fingerlings can be stocked in 1 ha



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



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Tamenglong (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of  $24.0 - 28.0\,^{\circ}\text{C}$  and minimum temp. of  $19.0 - 21.0\,^{\circ}\text{C}$ . The maximum RH is likely to attain max of  $100\,^{\circ}$  and minimum RH of  $92\,^{\circ}$ . The average wind speed during next five days may reach upto max. value of  $3\,\text{km/hr}$ .

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>- Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>- Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	pps		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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



Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/ Lemon/Papaya/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Scienc	res		
* Use water san	itizer to keep clean o	drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below		Himax ointment twice daily.
		Hump sore	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
			- Muddy water should not be given to animals as soil borne diseases like Black
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
rountry	All susceptible age groups		
		Pox	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
		3.6	- Administer 50ml calcicare for 100 birds in drinking water.
		Management	<ul><li>- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li><li>- Cover side walls of poultry sheds with polythene sheet to protect from rain.</li></ul>
Fisheries			- Cover side wans or pountry sneds with porythene sneet to protect from rain.
	with hanna to avoid	l fish escane from none	d if over flow of water occurs due to heavy rains
Type of Farming	Stage	Management Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agri-
curp current	Truiscries	1 0110 1101	lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or
	Glow-out	1 ond water	odour of pond water changes, then drain out half of pond water and replace with
			the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @
		1 ccu	3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
		1 1511 1101110/015	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
fish culture			cake (1:1) can be provided as supplementary feed.
			Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
(Ngakra)	1 Ond water		800kg/ha at 15 days interval as manure.
	Feed		Feed with high protein content 35-40% CP feed @ 5-8% body weight.
	Fish numbers		8000-10000 fingerlings can be stocked in 1 ha
	rish humbers		0000-10000 migemigs can be stocked in 1 ma



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



#### "Integrated Agromet Advisory Services"

# MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of
Imphal - West (25 <sup>th</sup> to 27 <sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Thoubal (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be cloudy with maximum temp. of 22.0 - 27.0  $^{\circ}$ C and minimum temp. of 20.0 – 21.0  $^{\circ}$ C. The maximum RH is likely to remain above 93 % and minimum RH is is likely to be nearly 79 % on 29th June. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ops		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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



Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/ Lemon/Papaya/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Science	es		
* Use water san	itizer to keep clean o	drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below	TT	Himax ointment twice daily.
		Hump sore	<ul> <li>In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.</li> <li>Muddy water should not be given to animals as soil borne diseases like Black</li> </ul>
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with
			Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible age groups	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
1 0 00101 3		Pox	- Vaccinate against pox.
		100	- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
			- Administer 50ml calcicare for 100 birds in drinking water.
		Management	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.
		Management	- Cover side walls of poultry sheds with polythene sheet to protect from rain.
Fisheries			
* Encircle pond Type of Farming			d if over flow of water occurs due to heavy rains
	Stage	Management	Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agri-
		Г 1	lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
	~	Fish numbers	20-30 million spawn per hectare.
	Grow-out	Pond water	Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or
			odour of pond water changes, then drain out half of pond water and replace with
		<b>—</b> 1	the fresh water.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @
			3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
D. 44	Water		Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
			cake (1:1) can be provided as supplementary feed.
G . C 1	D 1		Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
(Ngakra)	F 1		800kg/ha at 15 days interval as manure.
	Feed		Feed with high protein content 35-40% CP feed @ 5-8% body weight.
	Fish numbers		8000-10000 fingerlings can be stocked in 1 ha



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



#### "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 28<sup>th</sup> June, 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 29<sup>th</sup> June to 3<sup>rd</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25<sup>th</sup> to 27<sup>th</sup> June, 2013)

During the past three days the sky was cloudy but partly cloudy during afternoon hours of  $26^{th}$  June. **34.9 mm** rainfall was recorded during past three days. Maximum temperature range observed was 28.3-30.2 °C, range of minimum temperature observed was 22.4-24.1 °C, mean relative humidity observed in morning and afternoon were 95.0 and 77.67 % respectively. The average wind speed range was 1.2-1.5 km/hr.

Weather forecast for next five days of Ukhrul (29<sup>th</sup> June to 3<sup>rd</sup> July, 2013)

It is likely to have heavy to very heavy rains during next 48 hrs but light to moderate during remaining days with thundershowers during next five days. The sky is likely to be mainly cloudy to cloudy with maximum temp. of  $20.0 - 25.0\,^{\circ}\text{C}$  and minimum temp. of  $15.0 - 18.0\,^{\circ}\text{C}$ . The maximum RH is likely to attain max of 99 % and minimum RH of 94 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Monsoon Watch: Yesterday, Southwest monsoon was vigorous over Madhya Pradesh and active over Jammu & Kashmir, Himachal Pradesh, east Uttar Pradesh, south interior Karnataka and Arunachal Pradesh

Main Weather Observation: Kalpana 1Cloud Imagery at 1730 hrs IST shows low/medium clouds over Manipur.

Weather Forecast for next 3 days (upto 0830 hours IST of 1st July, 2013): Rain/thundershowers would occur at most places over northeast.

Weather Warnings: Heavy to very heavy rainfall would occur at one or two places over Manipur during next 48 hrs.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Grain maturity		- There is forecast for heavy to very heavy rainfall during next 48hrs.  Hence, mature crops may be harvested. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field.
	(Kharif) Nursery and land preparation of main field		<ul> <li>Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Sowing may be done after some days as there is forecast for heavy to very heavy rainfall in next few days. Make possible arrangements to avoid submergence of seedlings for long time.</li> <li>After the wet spell, 2-3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth.</li> </ul>
Maize	Cob maturity to harvesting (Summer maize)		<ul> <li>Maintain proper drainage system to avoid water logging in and around the crop field due to heavy to very heavy rains during next few days.</li> <li>Harvest the mature cobs for seeds. Make bundles and dry.</li> </ul>
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.
Blackgram/ Rice bean	Sowing		- Make provisions for proper drainage system in and around the crop field where the crop is already sown to avoid water logging.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps		
Chilli	Fruiting to harvesting		- Provide proper drainage as there is forecast of heavy to very heavy rains during next 48 hrs water stagnation is harmful for chilli. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Cucurbits	Fruiting		<ul> <li>Make provisions for proper drainage system in and around the crop field to avoid water logging or submergence of crops.</li> <li>Support/ stack properly to avoid any loss due to contact with soil and to avoid overcrowding of leaves/ branches.</li> </ul>



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



Turmeric	Vegetative		Make provisions for proper drainage system in and around the crop field to
			avoid water logging or submergence of crops.
Orange/Lime/ Lemon/Papaya/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
			Bordeaux paste or Benlate after the wet spell.
Litchi/ Tree			- Make provisions for proper drainage system in and around the crop field
bean			to avoid water logging or submergence of crops.
Animal Scienc	es		100 000 000 000 000 000 000 000 000 000
		drinking water for anim	nals especially during rainy days.
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Goat	Above 3 months	- Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with
	of age		vitamins like Livozyme @ 50ml twice daily.
Pig	Above 3 months	- Swine Fever	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- Vaccinate with <i>Swine Fever</i> vaccine as per prescribed dose but de-worm
			using Panacur tab @ 1.5mg/10kg body weight before vaccination.
			- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/30 kg body weight once.
Cattle / Buffalo/	All age groups		- Apply Butox @ 3ml/lit of water while brushing the animals.
Mithun	except three		- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
	months or below		Himax ointment twice daily.
		Hump sore	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
			- Muddy water should not be given to animals as soil borne diseases like Black
			Quarter/ Black Leg outbreak may occur.
			- Osteovet susp. @50ml must be added in feed/ water twice daily along with
D 1/	A 11	C 111 1	Minamil powder @10-25g once daily for Milch cow.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
	age groups	Pox	- Vaccinate against pox.
			- Deworm with Piperazine Hexahydrate
			@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and
			@60ml/100 birds in 5-10 lit of water: above 6weeks of age.
			- Administer 50ml calcicare for 100 birds in drinking water.
		Management	- Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.
			- Cover side walls of poultry sheds with polythene sheet to protect from rain.
Fisheries			
* Encircle pond Type of Farming	with happa to avoid	fish escape from pond Management	d if over flow of water occurs due to heavy rains  Agro-metrological advisories
Carp culture	Nurseries	Pond water	Pond water must be made free from unwanted plants and insects. Apply agri-
Carp culture	Nurseries	1 Olid water	lime @250kg/ha at valley and 300kg at hilly areas.
		Feed	@5-10% body weight/day in 2-3 splits.
		Fish numbers	20-30 million spawn per hectare.
	Grow-out		Manuring at 30 days interval with a slurry of RCD @1500kg/ha. If the colour or
	Grow-out	Pond water	odour of pond water changes, then drain out half of pond water and replace with
			the fresh water.
		Food	Well balanced feed fortified with vitamins and minerals should be provided @
		Feed	3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked
		1 ISH HUIHDEIS	Sampling of fish for growth, diseases (if any) should be done by regular netting.
Doddy our	Water		Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil
Paddy cum fish culture			cake (1:1) can be provided as supplementary feed.
Cat fich	Dond water		Do not apply insecticide or pesticide in paddy cum fish culture practice.
Cat fish	Pond water		Water depth for nurseries: 0.5-0.8m. Add RCD @ 5000kg/ha at initial then 500-
(Ngakra)	D A		800kg/ha at 15 days interval as manure.
	Feed		Feed with high protein content 35-40% CP feed @ 5-8% body weight.  8000-10000 fingerlings can be stocked in 1 ha
	Fish numbers		