



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

2nd July, 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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 82 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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“Integrated Agromet Advisory Services”

Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

* Use water sanitizer to keep clean drinking water for birds and animals especially during rainy days. Check for water leakage in the sheds of birds and animals.

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	- Apply Butox @ 3ml/lit of water while brushing the animals. - 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/ Mithun	All age groups except three months or below	Hump sore	- Apply Butox @ 3 ml/lit of water while brushing the animals. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - 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. @50 ml must be added in feed/ water twice daily along with Minamil powder @10-25 g once daily for Milch cow.
Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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	



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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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 29.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 98 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

* Use water sanitizer to keep clean drinking water for birds and animals especially during rainy days. Check for water leakage in the sheds of birds and animals.

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	- Apply Butox @ 3ml/lit of water while brushing the animals. - 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/ Mithun	All age groups except three months or below	Hump sore	- Apply Butox @ 3 ml/lit of water while brushing the animals. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - 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. @50 ml must be added in feed/ water twice daily along with Minamil powder @10-25 g once daily for Milch cow.
Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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	

I. Meghachandra Singh
Scientist i/c, IAAS



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2nd July, 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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 25.0 - 28.0 °C and minimum temp. of 15.0 – 18.0 °C. The maximum RH is likely to attain max of 100% and minimum RH of 94 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

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Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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Orange/Lime/Lemon/Papaya/Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

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Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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.
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2nd July, 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 3rd to 7th July, 2013 as given below:

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		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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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

2nd July, 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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 32.0 °C and minimum temp. of 18.0 – 22.0 °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 5 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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



“Integrated Agromet Advisory Services”

Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

* Use water sanitizer to keep clean drinking water for birds and animals especially during rainy days. Check for water leakage in the sheds of birds and animals.

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	- Apply Butox @ 3ml/lit of water while brushing the animals. - 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/ Mithun	All age groups except three months or below	Hump sore	- Apply Butox @ 3 ml/lit of water while brushing the animals. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - 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. @50 ml must be added in feed/ water twice daily along with Minamil powder @10-25 g once daily for Milch cow.
Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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	

I. Meghachandra Singh
Scientist i/c, IAAS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

2nd July, 2013

Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 29.0 - 33.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 89 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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



“Integrated Agromet Advisory Services”

Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/Lemon/Papaya/Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

* Use water sanitizer to keep clean drinking water for birds and animals especially during rainy days. Check for water leakage in the sheds of birds and animals.

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	- Apply Butox @ 3ml/lit of water while brushing the animals. - 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/ Mithun	All age groups except three months or below	Hump sore	- Apply Butox @ 3 ml/lit of water while brushing the animals. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - 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. @50 ml must be added in feed/ water twice daily along with Minamil powder @10-25 g once daily for Milch cow.
Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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

2nd July, 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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - East (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 29.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 98 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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



“Integrated Agromet Advisory Services”

Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

* Use water sanitizer to keep clean drinking water for birds and animals especially during rainy days. Check for water leakage in the sheds of birds and animals.

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	- Apply Butox @ 3ml/lit of water while brushing the animals. - 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/ Mithun	All age groups except three months or below	Hump sore	- Apply Butox @ 3 ml/lit of water while brushing the animals. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - 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. @50 ml must be added in feed/ water twice daily along with Minamil powder @10-25 g once daily for Milch cow.
Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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

2nd July, 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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal - West (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 28.0 - 30.0 °C and minimum temp. of 19.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 90 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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



“Integrated Agromet Advisory Services”

Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

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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	- Apply Butox @ 3ml/lit of water while brushing the animals. - 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/ Mithun	All age groups except three months or below	Hump sore	- Apply Butox @ 3 ml/lit of water while brushing the animals. - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily. - 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. @50 ml must be added in feed/ water twice daily along with Minamil powder @10-25 g once daily for Milch cow.
Poultry	All susceptible age groups	<i>Coccidiosis</i>	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
		<i>Pox</i>	- 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

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 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 @ 3-5% body weight per day in 2-3 splits.
		Fish numbers	8000-10,000 fingerlings/ha can be stocked Sampling of fish for growth, diseases (if any) should be done by regular netting.
Paddy cum fish culture	Water	Water depth of the trenches in paddy fields: 1.0 m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Do not apply insecticide or pesticide in paddy cum fish culture practice.	
Cat fish (Ngakra)	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.	
	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

2nd July, 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 3rd to 7th July, 2013 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (28th June to 1st July, 2013)</u></p> <p>During the past four days the sky was mainly cloudy to cloudy. 46.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 31.6 °C, range of minimum temperature observed was 22.2 – 23.0 °C, mean relative humidity observed in morning and afternoon were 86.25 and 83.0 % respectively. The average wind speed range was 1.0 – 2.0 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (3rd to 7th July, 2013)</u></p> <p>It is likely to have moderate rains but light rains on 4th & 5th. The sky is likely to be mainly cloudy to cloudy with maximum temp. of 27.0 - 30.0 °C and minimum temp. of 18.0 – 20.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 94 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Monsoon Watch: Southwest monsoon was active over east Uttar Pradesh, east Madhya Pradesh and Andaman & Nicobar Islands

Weather Forecast for next 3 days (upto 0830 hours IST of 5th July, 2013): Rain/thundershowers would occur at many places over Manipur.

Weather Outlook for subsequent 4 days from 5th to 9th July, 2013: Rain/thundershowers would occur at few places over northeastern states

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Grain maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow before it gets affected due to rain. If the crops are not mature enough for harvesting then make provisions for proper drainage system in and around the crop field to drain out water upto possible extent.
	(Kharif) Nursery and land preparation for transplanting		- Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing. - 2 to 3 ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Maintain water depth of 5-7 cm depth. At final leveling, apply basal dose.
Maize	Cob maturity to harvesting (Summer maize)		- Maintain proper drainage system to avoid water logging in and around the crop field due to rains during next five days. - Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Keep the plot clean to avoid leaf eating insects/hairy caterpillars.
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. - Sowing may be continued in upland area.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Crops			
Ginger/ Turmeric	Vegetative	Leaf Spot	- Make provisions for proper drainage system in and around the crop field to avoid water logging. - If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water.
Cucurbits	Fruiting to harvesting		- Make provisions for proper drainage system in and around the crop field to avoid water logging. - Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.



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Chilli	Fruiting to harvesting		- Provide proper drainage to avoid water logging as there is forecast of rains. Harvest fruits at earliest and for seeds choose red tinted mature fruits free from disease and dry it properly before storage.
Orange/Lime/Lemon/Papaya/Litchi/ Tree bean	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.

Animal Sciences

* Use water sanitizer to keep clean drinking water for birds and animals especially during rainy days. Check for water leakage in the sheds of birds and animals.

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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