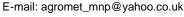
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ICAR Research Complex for N.E.H. Region Manipur Centre, Lamphelpat, Imphal - 795 004





## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### **Bishnupur**

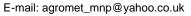
IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 10<sup>th</sup> to 14<sup>th</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of	$\underline{\text{M}}$ <u>Weather forecast for next five days of Bishnupur (10<sup>th</sup> to 14<sup>th</sup></u>
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	July, 2013)
During the past four days the sky was mainly cloud	y to It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. 5.2 mm rainfall was recorded during past four d	ays. The sky is likely to be mainly cloudy with maximum temp. of
Maximum temperature range observed was 27.2 – 29.2	2 °C, 27.0 - 30.0 °C and minimum temp. of 20.0 – 22.0 °C. The
range of minimum temperature observed was 21.1 -	23.0 maximum RH is likely to attain max of 100 % and minimum
<sup>o</sup> C, mean relative humidity observed in morning	and RH of 87 %. The average wind speed during next five days
afternoon were 90.25 and 76.0 % respectively. The ave	rage may reach upto max. value of 2 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
Rice bean	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps		
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>





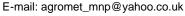


# "Integrated Agromet Advisory Services"

Turmeric	Vegetative	Leaf Spot and leaf blotch	<ul> <li>Make arrangements to avoid water logging.</li> <li>After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.</li> </ul>
Cucurbits	Fruiting to harvesting	Powdery mildew	<ul> <li>If there is infestation of Powdery mildew in large scale, then first harvest mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.</li> <li>Make provisions to avoid water logging.</li> <li>Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.</li> </ul>
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 Scienc	es.		
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	Ecto-parasite	<ul> <li>Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.</li> </ul>
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age	Hump sore	<ul> <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> </ul>
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.
5	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.
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.

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## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### Chandel

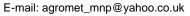
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Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Chandel (10 <sup>th</sup> to 14 <sup>th</sup>
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	July, 2013)
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy to cloudy with maximum
Maximum temperature range observed was $27.2 - 29.2$ °C,	temp. of 25.0 - 29.0 °C and minimum temp. of 19.0 – 21.0 °C.
range of minimum temperature observed was 21.1 – 23.0	The maximum RH is likely to attain max of 99 % and
°C, mean relative humidity observed in morning and	minimum RH of 89 %. The average wind speed during next
afternoon were 90.25 and 76.0 % respectively. The average	five days may reach upto max. value of 4 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	l l		
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
<b>Rice bean</b>	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps s		
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>







# "Integrated Agromet Advisory Services"

Turmeric	Vegetative		- Make arrangements to avoid water logging.
		Leaf Spot and leaf	- After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure
		blotch	against Leaf spot and Leaf blotch.
Cucurbits	Fruiting to	Powdery mildew	- If there is infestation of Powdery mildew in large scale, then first harvest
	harvesting		mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.
			- Make provisions 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.
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.
bean Animal Science	<i>es</i>		
Name of the	Growth stage	Disease/ infestation	Agro-meteorological advisories
animal	Growth stage	Disease/ infestation	Agi o-incutoi ologicai auvisoritis
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	Ecto-parasite	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a
			vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/	Above 3 months	Hump sore	- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
Mithun	of age		<ul><li>Himax ointment twice daily.</li><li>In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.</li></ul>
		Ecto-parasite	<ul> <li>Apply Butox @ 3 ml/lit of water while brushing the animals.</li> </ul>
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		-	
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
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	<ul> <li>Administer 50ml calcicare for 100 birds in drinking water.</li> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> </ul>
		Management	
Type of Farming	Stage	Management	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> </ul>
	Stage Nurseries	· · ·	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> <li>Pond water must be made free from unwanted plants and insects. Apply agri-</li> </ul>
Type of Farming		Management Pond water	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> <li>Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.</li> </ul>
Type of Farming		Management Pond water Feed	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> <li>Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> </ul>
Type of Farming	Nurseries	Management         Pond water         Feed         Fish numbers	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> </ul> 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.
Type of Farming		Management Pond water Feed	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> </ul> 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
Type of Farming	Nurseries	Management         Pond water         Feed         Fish numbers	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> <li>Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> <li>20-30 million spawn per hectare.</li> <li>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</li> </ul>
	Nurseries	Management         Pond water         Feed         Fish numbers         Pond water	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> <li>Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> <li>20-30 million spawn per hectare.</li> <li>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.</li> </ul>
Type of Farming	Nurseries	Management         Pond water         Feed         Fish numbers	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>Agro-metrological advisories</li> <li>Pond water must be made free from unwanted plants and insects. Apply agrilime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> <li>20-30 million spawn per hectare.</li> <li>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.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided @</li> </ul>
Type of Farming	Nurseries	Management         Pond water         Feed         Fish numbers         Pond water         Feed         Feed	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>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.</li></ul>
Type of Farming	Nurseries	Management         Pond water         Feed         Fish numbers         Pond water	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>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</li></ul>
Type of Farming Carp culture	Nurseries Grow-out	Management         Pond water         Feed         Fish numbers         Pond water         Feed         Feed	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>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.</li></ul>
Type of Farming	Nurseries	Management         Pond water         Feed         Fish numbers         Pond water         Feed         Feed	<ul> <li>Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.</li> <li>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</li></ul>

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## "Integrated Agromet Advisory Services"

#### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### Churachandpur

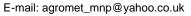
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Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Churachandpur (10 <sup>th</sup> to
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	14 <sup>th</sup> July, 2013)
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy to cloudy with maximum
Maximum temperature range observed was 27.2 – 29.2 °C,	temp. of 28.0 - 31.0 $^{\circ}$ C and minimum temp. of 20.0 – 23.0 $^{\circ}$ C.
range of minimum temperature observed was 21.1 – 23.0	The maximum RH is likely to attain max of 100 % and
°C, mean relative humidity observed in morning and	minimum RH of 86 %. The average wind speed during next
afternoon were 90.25 and 76.0 % respectively. The average	five days may reach upto max. value of 4 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops	1		
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
Rice bean	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	pps		
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>







# "Integrated Agromet Advisory Services"

Turmeric	Vegetative	Leaf Spot and leaf blotch	<ul> <li>Make arrangements to avoid water logging.</li> <li>After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.</li> </ul>
Cucurbits	Fruiting to harvesting	Powdery mildew	<ul> <li>If there is infestation of Powdery mildew in large scale, then first harvest mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.</li> <li>Make provisions to avoid water logging.</li> <li>Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.</li> </ul>
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 Scienc	es		
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	Ecto-parasite	<ul> <li>Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.</li> </ul>
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age	Hump sore	<ul> <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> </ul>
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
5	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.
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.

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



## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### Imphal-East

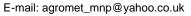
IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 10<sup>th</sup> to 14<sup>th</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Imphal - East (10 <sup>th</sup> to
Imphal - West $(5^{\text{th}} \text{ to } 8^{\text{th}} \text{ July, } 2013)$	<u>14<sup>th</sup> July, 2013)</u>
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy with maximum temp. of
Maximum temperature range observed was 27.2 – 29.2 °C,	26.0 - 29.0 °C and minimum temp. of 19.0 – 22.0 °C. The
range of minimum temperature observed was 21.1 - 23.0	maximum RH is likely to attain max of 100 % and minimum
°C, mean relative humidity observed in morning and	RH of 84 %. The average wind speed during next five days
afternoon were 90.25 and 76.0 % respectively. The average	may reach upto max. value of 3 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
<b>Rice bean</b>	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps		
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>







# "Integrated Agromet Advisory Services"

Turmeric	Vegetative	Leaf Spot and leaf blotch	<ul> <li>Make arrangements to avoid water logging.</li> <li>After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.</li> </ul>
Cucurbits	Fruiting to harvesting	Powdery mildew	<ul> <li>- If there is infestation of Powdery mildew in large scale, then first harvest mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.</li> <li>- Make provisions to avoid water logging.</li> <li>- Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.</li> </ul>
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	<ul> <li>If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
Animal Scienc	es		
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	Ecto-parasite	<ul> <li>Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.</li> </ul>
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age	Hump sore	<ul> <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> </ul>
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
2 0 0 0 0 0 0	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.
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	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.

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## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

#### Imphal-West

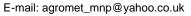
IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 10<sup>th</sup> to 14<sup>th</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Imphal - West (10 <sup>th</sup> to
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	<u>14<sup>th</sup> July, 2013)</u>
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy with maximum temp. of
Maximum temperature range observed was 27.2 – 29.2 °C,	27.0 - 30.0 °C and minimum temp. of 21.0 – 23.0 °C. The
range of minimum temperature observed was 21.1 – 23.0	maximum RH is likely to attain max of 100 % and minimum
°C, mean relative humidity observed in morning and	RH of 82 %. The average wind speed during next five days
afternoon were 90.25 and 76.0 % respectively. The average	may reach upto max. value of 2 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
Rice bean	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	pps		· · · ·
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>





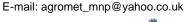


# "Integrated Agromet Advisory Services"

Turmeric	Vegetative	Leaf Spot and leaf blotch	<ul> <li>Make arrangements to avoid water logging.</li> <li>After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.</li> </ul>
Cucurbits	Fruiting to harvesting	Powdery mildew	<ul> <li>- If there is infestation of Powdery mildew in large scale, then first harvest mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.</li> <li>- Make provisions to avoid water logging.</li> <li>- Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.</li> </ul>
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	<ul> <li>If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
Animal Scienc	es		
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	Ecto-parasite	<ul> <li>Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.</li> </ul>
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age	Hump sore	<ul> <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> </ul>
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
2 0 0 0 0 0 0	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.
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	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.

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## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

#### Senapati

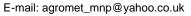
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Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Senapati (10 <sup>th</sup> to 14 <sup>th</sup>
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	<u>July, 2013)</u>
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy with maximum temp. of
Maximum temperature range observed was 27.2 – 29.2 °C,	26.0 - 29.0 °C and minimum temp. of 18.0 – 20.0 °C. The
range of minimum temperature observed was 21.1 – 23.0	maximum RH is likely to attain max of 100 % and minimum
<sup>o</sup> C, mean relative humidity observed in morning and	RH of 84 %. The average wind speed during next five days
afternoon were 90.25 and 76.0 % respectively. The average	may reach upto max. value of 2 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
Rice bean	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	pps		· · · ·
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>







# "Integrated Agromet Advisory Services"

Turmeric	Vegetative		- Make arrangements to avoid water logging.
		Leaf Spot and leaf blotch	- After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.
Cucurbits	Fruiting to	Powdery mildew	- If there is infestation of Powdery mildew in large scale, then first harvest
	harvesting		mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.
			- Make provisions 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.
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 Scienc	PS		
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	Ecto-parasite	- Apply Butox @ 3ml/lit of water while brushing the animals.
C	of age		- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a
			vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/	Above 3 months	Hump sore	- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
Mithun	of age		Himax ointment twice daily.
		<b>F</b> ( )	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
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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.
Fisheries		T	
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
D 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.

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



## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### Tamenglong

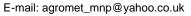
IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 10<sup>th</sup> to 14<sup>th</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Tamenglong (10 <sup>th</sup> to
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	14 <sup>th</sup> July, 2013)
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy to cloudy with maximum
Maximum temperature range observed was 27.2 – 29.2 °C,	temp. of 27.0 - 30.0 $^{\circ}$ C and minimum temp. of 20.0 – 23.0 $^{\circ}$ C.
range of minimum temperature observed was 21.1 - 23.0	The maximum RH is likely to attain max of 100 % and
°C, mean relative humidity observed in morning and	minimum RH of 83 %. The average wind speed during next
afternoon were 90.25 and 76.0 % respectively. The average	five days may reach upto max. value of 3 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
<b>Rice bean</b>	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps		
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>







# "Integrated Agromet Advisory Services"

Turmeric	Vegetative		- Make arrangements to avoid water logging.
		Leaf Spot and leaf	- After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure
		blotch	against Leaf spot and Leaf blotch.
Cucurbits	Fruiting to	Powdery mildew	- If there is infestation of Powdery mildew in large scale, then first harvest
	harvesting		mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.
			- Make provisions 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.
Orange/Lime/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/	_		Bordeaux paste or Benlate.
Litchi/ Tree			
bean			
Animal Scienc			
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	Ecto-parasite	- Apply Butox @ 3ml/lit of water while brushing the animals.
	of age		- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a
			vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/	Above 3 months	Hump sore	- Wash the sore with Hydrogen peroxide or Potassium permanganate and apply
Mithun	of age		Himax ointment twice daily.
		Esta parasita	- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
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.
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-
culp culture	Indiseries	I Oliu water	
	Indiseries		lime @250kg/ha at valley and 300kg at hilly areas.
cmp culture	Nuiseries	Feed	lime @250kg/ha at valley and 300kg at hilly areas. @5-10% body weight/day in 2-3 splits.
		Feed Fish numbers	lime @250kg/ha at valley and 300kg at hilly areas.@5-10% body weight/day in 2-3 splits.20-30 million spawn per hectare.
cmp canal	Grow-out	Feed	lime @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
cmp canal		Feed Fish numbers	lime @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
		Feed Fish numbers Pond water	<ul> <li>lime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> <li>20-30 million spawn per hectare.</li> <li>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.</li> </ul>
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	Grow-out	Feed         Fish numbers         Pond water         Feed	<ul> <li>lime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> <li>20-30 million spawn per hectare.</li> <li>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.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided @3-5% body weight per day in 2-3 splits.</li> <li>8000-10,000 fingerlings/ha can be stocked</li> <li>Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
Paddy cum fish culture		Feed         Fish numbers         Pond water         Feed	<ul> <li>lime @250kg/ha at valley and 300kg at hilly areas.</li> <li>@5-10% body weight/day in 2-3 splits.</li> <li>20-30 million spawn per hectare.</li> <li>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.</li> <li>Well balanced feed fortified with vitamins and minerals should be provided @3-5% body weight per day in 2-3 splits.</li> <li>8000-10,000 fingerlings/ha can be stocked</li> </ul>

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



## "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### Thoubal

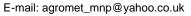
IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 10<sup>th</sup> to 14<sup>th</sup> July, 2013 as given below:

Significant past weather for the preceding bi-weekly of	Weather forecast for next five days of Thoubal (10 <sup>th</sup> to 14 <sup>th</sup>
Imphal - West (5 <sup>th</sup> to 8 <sup>th</sup> July, 2013)	July, 2013)
During the past four days the sky was mainly cloudy to	It is likely to have light rains but moderate rains on 12 <sup>th</sup> July.
cloudy. <b>5.2 mm</b> rainfall was recorded during past four days.	The sky is likely to be mainly cloudy to cloudy with maximum
Maximum temperature range observed was 27.2 – 29.2 °C,	temp. of 26.0 - 29.0 $^{\circ}$ C and minimum temp. of 19.0 – 21.0 $^{\circ}$ C.
range of minimum temperature observed was 21.1 – 23.0	The maximum RH is likely to attain max of 100 % and
<sup>o</sup> C, mean relative humidity observed in morning and	minimum RH of 89 %. The average wind speed during next
afternoon were 90.25 and 76.0 % respectively. The average	five days may reach upto max. value of 4 km/hr.
wind speed range was $2.2 - 8.2$ km/hr.	

Monsoon Watch: Southwest monsoon was active over Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Punjab, coastal Andhra Pradesh, Telangana, coastal & north interior Karnataka, Assam & Meghalaya and Andaman & Nicobar Islands.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			·
Rice	(Pre-kharif) Maturity to harvesting		- Harvest rice crop when (75-80) % of the spikelet is yellow.
	(Kharif) Nursery and land preparation to transplanting		<ul> <li>Sowing may be done. Treat the seed with Carbendazim @ 2g/kg of seed before sowing.</li> <li>Before first ploughing apply 10-15 t of FYM/ compost per ha. Two/ three ploughing with cross ploughing followed by puddling and levelling for transplanting may be done. Also, cut out the corners and edges of the fields. Maintain water depth of 5-7 cm depth.</li> <li>Apply 50% of total N, full dose of P and 1/3<sup>rd</sup> of K at the time of final puddling.</li> <li>Uproot 25 days old seedlings. Transplant 2-3 seedlings at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.</li> </ul>
Maize	Harvesting (Summer maize)		- Harvest the mature cobs for seeds. Make bundles, dry and store.
Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
<b>Rice bean</b>	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
Horticulture Cro	ps		
Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>





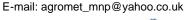


# "Integrated Agromet Advisory Services"

Turmeric	Vegetative	Leaf Spot and leaf blotch	<ul> <li>Make arrangements to avoid water logging.</li> <li>After rains, spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.</li> </ul>
Cucurbits	Fruiting to harvesting	Powdery mildew	<ul> <li>- If there is infestation of Powdery mildew in large scale, then first harvest mature fruits, then spray Bayleton @ 7 gm/ lit of water after the rains.</li> <li>- Make provisions to avoid water logging.</li> <li>- Support/ stack properly to avoid any loss due to contact of fruits with soil and to avoid overcrowding of leaves/ branches.</li> </ul>
Orange/Lime/ Lemon/Papaya/ Litchi/ Tree bean	Planting	Lichen incidence	<ul> <li>If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.</li> </ul>
Animal Scienc	es		
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	Ecto-parasite	<ul> <li>Apply Butox @ 3ml/lit of water while brushing the animals.</li> <li>For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @ 1ml/ 30 kg body weight once.</li> </ul>
		Helminth parasite	- Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt.once. Accompany with a vitamin like Livozyme @ 50ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age	Hump sore	<ul> <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> </ul>
		Ecto-parasite	- Apply Butox @ 3 ml/lit of water while brushing the animals.
		Helminth parasite	- Give Nilzan-90ml suspension @90ml for 300 kg b. wt.
		Fascioliosis	- Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.
Poultry	All susceptible	Coccidiosis	- Poultry must be provided <i>Coximar</i> (@ <i>1g/lit of drinking water</i> ) for 7 days.
2 0 0 0 0 0 0	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.
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	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.

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





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### MANIPUR BULLETIN 9<sup>th</sup> July, 2013

### Ukhrul

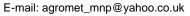
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range of minimum temperature observed was 21.1 – 23.0	maximum RH is likely to attain max of 100 % and minimum
°C, mean relative humidity observed in morning and	RH of 88 %. The average wind speed during next five days
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Soybean / Groundnut	Vegetative		- Two hand weeding are required, one at nearly 25 days and second at 35 days to avoid leaf eating insects/hairy caterpillars.
Blackgram/	Sowing to		- Sowing may be continued in new areas.
<b>Rice bean</b>	vegetative		- Inter-culture operations may be carried out.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.
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Colocasia	Corm formation		<ul> <li>Weeding and earthing up of the soil at the base of the plant is necessary to enhance corm development. Drain out excess water.</li> <li>Spray D-M 45 @ 2g/lit of water to protect from leaf spot.</li> </ul>
Banana	Planting		<ul> <li>Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarft varieties.</li> <li>Pit size: 2x2x2 feet. Fill up the pit with soil &amp; FYM in the ratio 3:2. Plant one sucker (with broad base &amp; narrow leaves) per pit.</li> <li>In newly established orchard, intercropping with cabbage/ cauliflower/ radish/ carrot or spinach may be followed.</li> </ul>







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			and to avoid overcrowding of leaves/ branches.
Orange/Lime/	Planting	Lichen incidence	- If lichen is observed, then scrap out the affected area and paint with
Lemon/Papaya/	0		Bordeaux paste or Benlate.
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Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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-	of age		- For skin infection due to bite of mosquitoes or wild flies, inject Ivermectin @
			1ml/ 30 kg body weight once.
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			@ 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.
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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
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		Feed	Well balanced feed fortified with vitamins and minerals should be provided @
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		Fish numbers	8000-10,000 fingerlings/ha can be stocked
D. 11	XX		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.