



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th July, 2014

Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Churachandpur (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 33.0 – 35.0 °C & minimum temp. 23.0 – 25.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 96 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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“Integrated Agromet Advisory Services”

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
Fish		8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.	
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

(I. Meghachandra Singh)
Scientist i/c, GKMS



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MANIPUR BULLETIN

11th July, 2014

Imphal-East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Imphal-East (12th to 16th July, 2014)

There may be light rain upto Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 33.0 – 36.0 °C & minimum temp. 23.0 – 25.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 92 % (minimum RH). The average wind speed may be 0-2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
Fish		8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.	
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

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11th July, 2014

Imphal-West

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Weather forecast for next five days of Imphal-West (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 33.0 – 35.0 °C & minimum temp. 23.0 – 25.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 92 % (minimum RH). The average wind speed may be 0-2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
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	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
Fish		8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.	
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
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11th July, 2014

Senapati

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

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Weather forecast for next five days of Senapati (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 21.0 – 23.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 91 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
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Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
Fish		8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.	
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th July, 2014

Tamenglong

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Tamenglong (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 35.0 – 37.0 °C & minimum temp. 24.0 – 25.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 91 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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



“Integrated Agromet Advisory Services”

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
		Fish	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.
	Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th July, 2014

Thoubal

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Thoubal (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 33.0 – 35.0 °C & minimum temp. 23.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 94 % (minimum RH). The average wind speed may be 0-2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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



“Integrated Agromet Advisory Services”

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
Fish		8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.	
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th July, 2014

Ukhrul

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Ukhrul (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 20.0 – 22.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 91 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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



“Integrated Agromet Advisory Services”

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
Fish		8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.	
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th July, 2014

Bishnupur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Bishnupur (12th to 16th July, 2014)

There may be light rain upto Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 34.0 – 36.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 94 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
Turmeric	Vegetative to rhizome formation	Leaf spot disease	- Spray Redomil MZ-72 WP @ 2g/lit of water alternatively with Carbendazim @ 2g/ lit of water at 14days interval.



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



“Integrated Agromet Advisory Services”

Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Deworming	- Deworming against Helminth parasites using Piperazine liquid @ 30-40ml for 100 birds in drinking water. Again give half of the dose on second day.
		Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		B.Q.	- Vaccinate against B.Q. @ 1ml sub- cutaneously.
Pig	Above 3 months of age (as and when required)	Ticks	Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while brushing the animal.
		Protozoan Parasites	Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.
		Deworming	- Deworming against Helminth parasites using Piperazine citrate @ 30 ml per adult animal once.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	- Inject Parid @ 1 ml/ 50 kg body weight.
		Tick	Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight interval.
		Deworming	- Deworming against Helminth parasites using Albendazole @ 5-10 g/kg b.wt.
		B.Q./ H.S.	Vaccinate against B.Q./ H.S. sub- cutaneously.
Fishery:			
Type of Farming	Stage	Management	Agro-metrological advisories
* p ^H of pond water should be maintained at 7.0-7.5.			
Carp culture	Breeding	Pond and water	Water must be clean, free from unwanted vegetation and insects & depth of 1.0-1.5m should be maintained.
		Fish (Hormone dose)	Good quality of carp brooders (2-4 years old) eg Rohu, Mrigal, Catla, Kuri, Pengba, Khabak, etc. can be breed in both ponds and in artificial breeding pools. Either Ovitide or Wova-FH or Ovaprim @ 0.5ml/kg body weight can be injected to induce for spawning.
	Nurseries	Ponds	Ponds water should be clean and depth should be maintained at 1.0-1.5m.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day.
		Fish	20-30 million spawn can be stock in 1 ha pond.
	Grow - out	Pond and water	Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drain out and change with fresh water.
		Fish	8000-10,000 fingerlings/ha can be stocked. Sampling of fish for growth, diseases (if any) should be done by regular netting.
Feed		Well balanced feed fortified with vitamins and minerals should be provided @ 3-5% body weight per day. Feed can be fed at 2-3 times a day.	
Paddy cum fish culture	Water	Water depth of the trenches in paddy field should be maintained at 1.0m. Rice bran and mustard oil cake (1:1) can be provided as supplementary feed. Application of insecticide/pesticide should be prohibited in paddy cum fish culture.	
Cat fish (Ngakra)	Breeding	Fully matured, good quality of <i>Clarias magur</i> having 230g-300g, 1-3 years old can be used as brooder. Ovitide or Wova-FH or Ovaprim @ 0.7-0.8ml/kg body weight can be injected for breeding. 8000-10000 fingerlings can be stocked in ha	
	Water	Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval.	
	Feed	- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.	

(I. Meghachandra Singh)
Scientist i/c, GKMS



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MANIPUR BULLETIN

11th July, 2014

Chandel

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (8th to 10th July, 2014)

During past four days sky was mainly clear to cloudy. **7.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 28.3 – 34.9 °C, range of minimum temperature observed was 22.3 – 23.9 °C, mean relative humidity observed in morning and afternoon were 77.25 % and 70.75 % respectively. The average wind speed range was 2.0 - 8.9 km/hr.

Weather forecast for next five days of Chandel (12th to 16th July, 2014)

There may be light rain on Sunday. Sky may be mainly cloudy to cloudy with maximum temp. of 34.0 – 36.0 °C & minimum temp. 24.0 – 25.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 91 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Nursery to transplanting of <i>Main Kharif</i>		- Uproot 25-35 days old seedlings. About 1200-1300 bundles of seedlings (40cm diameter) are required for transplanting in one hectare area. Row planting of 2-3 seedlings per hill may be done at 25 x 10cm using beaded rope. - Maintain a thin film of water upto 7 days after transplanting.
	Maturity to harvesting of pre-kharif		- Drain out water completely from field 10-15 days before harvesting of pre-kharif rice. - Crops may be harvested when 80% of the panicles turns hard & yellow.
Maize	Kharif Maize: vegetative		- Weeding may be done.
Soybean / Groundnut	Vegetative		- Hand weeding, earthing-up and thinning may be done before 30-35 days after sowing. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage (Maize seeds)			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.
Horticulture Crops			
Early Cauliflower	Nursery		- Raise nurseries of early cauliflower in raised beds (10-15cm high) under temporary rain shelter. Apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. Till germination the cover bed with paddy straw.
Khasi Mandarin	4-6 inches high with 8-10 leaves seedlings		- 4-6 inches high with 8-10 leaves seedlings should be transplanted in black poly bag of size 12x6 inches having 3-4 holes at the bottom to drain out excess water. - Sterilized potting material (soil, sand and FYM in the ratio 1:1:1) should be used. - Seedlings should be treated with Ridomil MZ-72 WP @ 2.75 g/ litre of water. Keep seedlings preferably in 50% net shade.
	For bearing trees		- Spray Nuvan @ 1.5 ml/litre of water or Confidor @ 0.5 ml/ litre of water against leaf eating caterpillar/ thrips leaf minor. - Spray Neem oil (1%) as foliar spray with any of the pesticides; followed by Sixer (Carbendazim + Mencozeb) @ 2 g/ litre of water.
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