



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Churachandpur (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 31.0 – 32.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 87 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/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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MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Imphal-East (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 30.0 – 32.0 °C & minimum temp. 23.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 84 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/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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Imphal-West

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Weather forecast for next five days of Imphal-West (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 29.0 – 31.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 79 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/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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22nd 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 23rd to 27th July, 2014 as given below:

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Weather forecast for next five days of Senapati (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 28.0 – 30.0 °C & minimum temp. 20.0 – 22.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 82 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
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Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/ha at 15 days interval.
Feed			- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Tamenglong (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 23.0 – 25.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 79 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/ha at 15 days interval.
Feed			- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Thoubal (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 31.0 – 33.0 °C & minimum temp. 22.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 88 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/ha at 15 days interval.
Feed			- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Ukhrul (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 28.0 – 30.0 °C & minimum temp. 19.0 – 21.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 87 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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



“Integrated Agromet Advisory Services”

Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/ha at 15 days interval.
Feed			- Feed with high protein content 35-40% CP should be given @ 5-8% body weight.



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Bishnupur (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 30.0 – 33.0 °C & minimum temp. 23.0 – 24.0 °C. Relative humidity may reach a maximum of 100 % (maximum RH) & 85 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
Early Cauliflower	Nursery		<ul style="list-style-type: none"> - For nursery rising of early cauliflower in 10-15cm high beds under temporary rain shelter, apply 1-2 kg FYM/ m² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. Select early varieties like Early Himlata, White shot, etc. - Land preparation for transplanting seedlings may be started.
		Plutella Diamond Black Moth	<ul style="list-style-type: none"> - There may be incidence of Plutella Diamond Black Moth in nursery. If the plant is young then hand picking is advised otherwise neem based pesticides may be sprayed.



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“Integrated Agromet Advisory Services”

Broccoli (in foot-hills/ solaric tunnel)	Nursery raising of off-season broccoli		- Prepare 10-15cm high nursery beds under temporary rain shelter, apply 1-2 kg FYM/ m ² of nursery bed. Drench the soil with Carbendazim or Captan 50 W.P. before sowing.
Turmeric	Rhizome formation in turmeric	Leaf spot	Prophylactic spray of Redomil MZ 72 WP @ 2g/lit water alternately with Carbendazim @ 2g/lit water at 14 days interval may be sprayed against Taphrina leaf spot disease.
		Rhizome rot	- Spray Dithane M-45 @ 2.5 gm/ lit of water to prevent rhizome rot disease.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Fowl pox	- Vaccinate against fowl pox. If already infected paint with Iodine tincture or Betadine liquid daily on pox growth.
		Management	Add Furazolidone @ 100g in 100 kg of feed for one week. Keep litter material dry and add lime powder (deactivated) @ 3-4 kg per 100sq. ft.
		Parasites (external)	Spray Butox liquid @ 2 ml/ lit of water twice a week.
Sheep/ Goat	Above 3 months of age (as and when required)	Endoparasite/ Ectoparasite	Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied with Livozyme @ 50ml daily.
		H.S.	- Vaccinate against H.S. @ ½ ml 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.
		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 (Helminth parasites)	- Deworming against using Albendazole @ 5-10 g/kg b.wt.

Fishery:

Type of Farming	Stage	Management	Agro-metrological advisories
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.
	Cat fish (Ngakra)	Breeding	
Water			Water depth should be maintained at 0.5m -0.8m for nurseries. Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800 kg/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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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

22nd 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 23rd to 27th July, 2014 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 21st July, 2014)

During past four days sky was partly cloudy to cloudy but mainly clear during morning hours of 20th July. **19.3 mm** rainfall was recorded during past four days. Maximum temperature range observed was 30.9 – 33.2 °C, range of minimum temperature observed was 22.0 – 24.4 °C, mean relative humidity observed in morning and afternoon were 82.5 % and 73.0 % respectively. The average wind speed range was 0.1 – 1.4 km/hr.

Weather forecast for next five days of Chandel (23rd to 27th July, 2014)

There may be light rain upto Thursday then moderate rain upto Sunday. Sky may be partly cloudy to cloudy with maximum temp. of 32.0 – 34.0 °C & minimum temp. 23.0 – 24.0 °C. Relative humidity may reach a maximum of 99 % (maximum RH) & 92 % (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	Transplanting of <i>Main Kharif</i>		<ul style="list-style-type: none"> - Complete transplanting before 31st July. - During final leveling apply fertilizer @ 60-80 kg N, 40 kg P₂O₅ and 30 kg K₂O/ ha with half of N, full of P₂O₅ and 2/3 of K₂O as basal dose before transplanting seedlings. - 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. Then increase water to 5-8cm. - Weed control: Apply Butachlor @ 25 kg/ha within one week of transplanting.
	Post- harvesting of <i>pre-kharif</i>		<ul style="list-style-type: none"> - Harvested panicles should be stacked in heaps and frequently turned upside down for 2-3 days. Threshed grains must be winnowed and sun-dried for 5-7 days.
Maize	<i>Kharif Maize:</i> Cob formation		<ul style="list-style-type: none"> - Weeding may be done.
Soybean / Groundnut	Vegetative		<ul style="list-style-type: none"> - Hand weeding should be done before 30-35 days after sowing. Also, earthing-up and thinning may be done. - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.
Storage			<ul style="list-style-type: none"> - 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			
Citrus			<ul style="list-style-type: none"> - Prune the disease infected twigs and burn them outside the farm area. - Spray Copper oxychloride @ 3ml/lit to control fungal disease.
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