



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th July, 2012

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 21st to 25th July, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Bishnupur (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy. The maximum temp. is likely to be 28.0 °C. The minimum temp. is likely to be 19.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 92 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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Cucurbits (sponge gourd, pumpkin, bitter gourd)	Fruiting to harvesting		<ul style="list-style-type: none"> - Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxyl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxichloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozanide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Poultry	All susceptible age groups	Endoparasite	- Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7 th day. - Give R ₂ B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
		Management during rainy season	- litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked I one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.



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MANIPUR BULLETIN

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Chandel

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<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Chandel (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 28.0 °C. The minimum temp. is likely to be 21.0 - 22.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 89 %. The average wind speed during next five days may reach upto max. value of 6 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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Cucurbits (sponge gourd, pumpkin, bitter gourd)	Fruiting to harvesting		<ul style="list-style-type: none"> - Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @ 3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxyl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxychloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozanide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Poultry	All susceptible age groups	Endoparasite	- Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7 th day. - Give R ₂ B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
		Management during rainy season	- litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked I one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.



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Churachandpur

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<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Churachandpur (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 29.0 °C. The minimum temp. is likely to be 19.0 - 21.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 90 %. The average wind speed during next five days may reach upto max. value of 6 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
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Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxychloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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Type of Fish	Stage	Management	Ago-metrological advisories
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Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
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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 21st to 25th July, 2012 as given below:

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Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
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Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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“Integrated Agromet Advisory Services”

Cucurbits (sponge gourd, pumpkin, bitter gourd)	Fruiting to harvesting		<ul style="list-style-type: none"> - Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @ 3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxyl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxichloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozanide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.



ICAR Research Complex for N.E.H. Region
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“Integrated Agromet Advisory Services”

Poultry	All susceptible age groups	Endoparasite	- Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7 th day. - Give R ₂ B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
		Management during rainy season	- litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked I one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.



ICAR Research Complex for N.E.H. Region
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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th July, 2012

Imphal-West

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 21st to 25th July, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Imphal- West (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy. The maximum temp. is likely to be 21.0 – 26.0 °C. The minimum temp. is likely to be 18.0 – 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 96 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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Cucurbits (sponge gourd, pumpkin, bitter gourd)	Fruiting to harvesting		<ul style="list-style-type: none"> - Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxyl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxychloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozanide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Poultry	All susceptible age groups	Endoparasite	- Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7 th day. - Give R ₂ B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
		Management during rainy season	- litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked I one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th July, 2012

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 21st to 25th July, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Senapati (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 28.0 °C. The minimum temp. is likely to be 18.0 - 20.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 92 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin)	Fruiting to harvesting		- Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		- Retain quality fruits for seeds for next season. Select fully matured ones.



ICAR Research Complex for N.E.H. Region
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“Integrated Agromet Advisory Services”

Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxychloride @3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxychloride @ 3ml/lit or 1% Bordeaux mixture.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.
Poultry	All susceptible age groups	Endoparasite	<ul style="list-style-type: none"> - Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	<ul style="list-style-type: none"> - Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	<ul style="list-style-type: none"> - Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - Give R₂B vaccine at the age of 45-60 days @0.5 ml (intramuscularly).
		Management during rainy season	<ul style="list-style-type: none"> - litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	<ul style="list-style-type: none"> - Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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



“Integrated Agromet Advisory Services”

Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carps	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can be fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked in one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.

I. Meghachandra Singh
 Scientist i/c, AMFU- Imphal Unit



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th July, 2012

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 21st to 25th July, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Tamenglong (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 30.0 °C. The minimum temp. is likely to be 20.0 - 22.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 95 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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



“Integrated Agromet Advisory Services”

Cucurbits (sponge gourd, pumpkin, bitter gourd)	Fruiting to harvesting		<ul style="list-style-type: none"> - Repair and provide support system or trellis. - If spread or trellised on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @ 3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxyl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxichloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozanide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.



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



“Integrated Agromet Advisory Services”

Poultry	All susceptible age groups	Endoparasite	- Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7 th day. - Give R ₂ B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
		Management during rainy season	- litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked I one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th July, 2012

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 21st to 25th July, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Thoubal (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 26.0 °C. The minimum temp. is likely to be 19.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 91 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Groundnut	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Bhindi	Fruiting to Harvesting		- Spray Dichlorovos @ 0.5 ml/lit of water or any neem based pesticides against Jassid, throughout the leaves after the harvesting both mature and immature fruits. - Go for frequent harvest of fruits. Use cheap hand gloves/ long sleeve shirt to avoid allergy while harvesting for commercial growers.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse.



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Cucurbits (sponge gourd, pumpkin, bitter gourd)	Fruiting to harvesting		<ul style="list-style-type: none"> - Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		<ul style="list-style-type: none"> - Retain quality fruits for seeds for next season. Select fully matured ones.
Cauliflower	Nursery		<ul style="list-style-type: none"> - Complete raising of early cauliflower variety like White shot within next 4-5 days then adopt White flash in raised nursery bed. - Provide temporary shed.
Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxichloride @3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxyl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxichloride @ 3ml/lit or 1% Bordeaux mixture.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozanide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Poultry	All susceptible age groups	Endoparasite	- Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7 th day. - Give R ₂ B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
		Management during rainy season	- litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. Water depth should be maintained at 1.0 m.
Carp	Nurseries	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> 120-150g feed can fed for 1 lakh spawn/day. Feed should be provided 2-3 times/day. Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> Pond should be free from unwanted vegetation and insects. Water depth should be maintained at 1.0-1.5m. During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> 8,000 – 10,000 fingerlings of carps should be stocked I one hectare water area. Regular checking for growth and diseases (if any) should be done by netting.



ICAR Research Complex for N.E.H. Region
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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

20th July, 2012

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 21st to 25th July, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17th to 19th July, 2012)</u>	<u>Weather forecast for next five days of Ukhrul (21st to 25th July, 2012)</u>
During the past three days the sky was mainly cloudy to cloudy. 6.3 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.7 – 32.4 °C, range of minimum temperature observed was 23.0 – 23.6 °C, mean relative humidity observed in morning and afternoon were 87.7 % and 64.3 % respectively. The average wind speed range was 3.1 – 5.6 km/hr.	During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 28.0 °C. The minimum temp. is likely to be 18.0 - 20.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 91 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.

Major Feature of Weather Forecast up to 0830 hours IST of 23rd July, 2012

Rain/thundershowers would occur at few places over northeastern states

Weather Outlook for subsequent 4 days up to 0830 hours IST of 27th July, 2012

Rain/ thunder shower activity would occur over northeastern states

Last week Advisories:

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Transplanting to early vegetative		- Maintain 10-15 cm of water level.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml/ha.
Kharif maize	Vegetative to silking		- Weeding should be done to prevent hairy caterpillar and other insect pest.
Soybean	Vegetative		- Hand weeding should be done to prevent hairy caterpillar and other insect pest.
Storage			- To prevent the infestation of stored grains, attack of rodents and mould growth proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days. - Seeds must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.
Horticulture Crops			
Cucurbits (sponge gourd, pumpkin)	Fruiting to harvesting		- Repair and provide support system or trellis. - If spread or trelled on the ground then use bedding material to avoid contact with soil. - In cucurbits that are at fruiting to harvesting stage, farmers should not take up spray of chemical fungicide & insecticide.
Chilli	Fruiting to harvesting		- Retain quality fruits for seeds for next season. Select fully matured ones.



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Turmeric + French Bean	Rhizome formation in turmeric		<ul style="list-style-type: none"> - Drenching of plants showing yellowing symptoms with Dithane M-45 @ 2.5 gm or Copper Oxychloride @3 g/ lit of water may be done to prevent rhizome rot disease. - Use bio-degradable mulches (properly dried twigs, paddy straw, etc.) in between turmeric plant in upland area.
Passion fruit			<ul style="list-style-type: none"> - Spray Carbaryl 0.1% or Malathion 0.05% or keeping fruit fly traps can control the fruit fly. Poison baiting with jaggery + fruit juice+ malathion (20:20:1) @ 40-50 baits/ha is also effective. - Collar rot can be controlled by spraying with copper fungicide or combination of Metalaxl + Mancozeb @ 2.5 g/lit of water or soil drenching with 1% Bordeaux mixture.
Citrus			<ul style="list-style-type: none"> - If not done in last week, spray Copper oxychloride @ 3ml/lit or 1% Bordeaux mixture.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Cattle / Buffalo	All susceptible age groups	Black Quarter/ H.S. Fascioliosis	<ul style="list-style-type: none"> - Vaccinate against B.Q. & H.S. @ 2 ml sub-cutaneously. - Deworm using Oxyclozide @ 10-15 mg/ kg body weight.
Pig	Above 3 months of age	Endoparasitic	<ul style="list-style-type: none"> - De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only.
	All susceptible age groups	- Swine Fever	<ul style="list-style-type: none"> - Vaccinate against Swine Fever after 3 months of age..
		Ectoparasitic	<ul style="list-style-type: none"> - Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15th day after it. - Use Butox @ 2 ml/lit of water while brushing the animal.
Poultry	All susceptible age groups	Endoparasite	<ul style="list-style-type: none"> - Deworm with Albendazole @ 35 ml for 100 birds in drinking water once and repeat it after 7 days.
		Coccidiosis	<ul style="list-style-type: none"> - Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis.
		Ranikhet	<ul style="list-style-type: none"> - Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - Give R₂B vaccine at the age of 45-60 days @0.5 ml (intramuscularly).
		Management during rainy season	<ul style="list-style-type: none"> - litter material should be kept dry. - Keep the feed in dry place.
Goat/ Sheep	All susceptible age groups	Endoparasite	<ul style="list-style-type: none"> - Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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Fisheries			
Type of Fish	Stage	Management	Ago-metrological advisories
Paddy cum fish culture		Field	<ul style="list-style-type: none"> • Preparation of trenches of 1.0 m depth and 1.0-2.0 m width can be made at the boundary or middle part of the field. • Water depth should be maintained at 1.0 m.
Carps	Nurseries	Pond and water	<ul style="list-style-type: none"> • Pond should be free from unwanted vegetation and insects. • Water depth should be maintained at 1.0-1.5m. • During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining. • Oil emulsion process should be done before fish stocking
		Feed	<ul style="list-style-type: none"> • 120-150g feed can be fed for 1 lakh spawn/day. • Feed should be provided 2-3 times/day. • Feeding should be given in fine powder form.
		Fish	<ul style="list-style-type: none"> • 1.0 -10 million spawn/ha can be stocked in one hectare nurseries pond depending on water quality and availability of natural feed in the pond.
	Grow out fish	Pond and water	<ul style="list-style-type: none"> • Pond should be free from unwanted vegetation and insects. • Water depth should be maintained at 1.0-1.5m. • During heavy shower, water should not drain directly into the pond. It should be passed through a bed of sand before draining.
		Feed	<ul style="list-style-type: none"> • Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed two-three times a day @ 3-5% body weight per day.
		Fish	<ul style="list-style-type: none"> • 8,000 – 10,000 fingerlings of carps should be stocked in one hectare water area. • Regular checking for growth and diseases (if any) should be done by netting.

I. Meghachandra Singh
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