



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

10th August, 2012

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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 32.0 - 33.0 °C. The minimum temp. is likely to be 23.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 77 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Horticulture Crops			
Pea	Sowing		- Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse/ temporary shed/ portable shed.
Cauliflower	Nursery		- Preparation for nursery of mid season varieties may be done preferably in rain sheltered area.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

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



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MANIPUR BULLETIN

10th August, 2012

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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 30.0 - 31.0 °C. The minimum temp. is likely to be 20.0 - 22.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 84 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the feild if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the feild. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Horticulture Crops			
Pea	Sowing		- Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse/ temporary shed/ portable shed.
Cauliflower	Nursery		- Preparation for nursery of mid season varieties may be done preferably in rain sheltered area.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

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MANIPUR BULLETIN

10th August, 2012

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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal- East (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 30.0 °C. The minimum temp. is likely to be 19.0 – 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 81 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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Fisheries			
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		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Horticulture Crops			
Pea	Sowing		- Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse/ temporary shed/ portable shed.
Cauliflower	Nursery		- Preparation for nursery of mid season varieties may be done preferably in rain sheltered area.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

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Manipur Centre, Lamphelpat, Imphal - 795 004**



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MANIPUR BULLETIN

10th August, 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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 31.0 °C. The minimum temp. is likely to be 19.0 - 21.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 75 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean	Vegetative	- Hairy caterpillar	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyrifos 20 EC @ 2 ml/ lit of water.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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			
Pea	Sowing		<ul style="list-style-type: none"> - Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		<ul style="list-style-type: none"> - 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.



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Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclozide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliosis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.

Fisheries

* Ponds should be free from unwanted vegetation and insects

Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change



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			with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

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MANIPUR BULLETIN

10th August, 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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 30.0 - 32.0 °C. The minimum temp. is likely to be 21.0 - 23.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 73 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Horticulture Crops			
Pea	Sowing		- Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse/ temporary shed/ portable shed.
Cauliflower	Nursery		- Preparation for nursery of mid season varieties may be done preferably in rain sheltered area.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

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MANIPUR BULLETIN

10th August, 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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 31.0 °C. The minimum temp. is likely to be 19.0 - 21.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 73 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraniliprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean	Vegetative	- Hairy caterpillar	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyrifos 20 EC @ 2 ml/ lit of water.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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			
Pea	Sowing		<ul style="list-style-type: none"> - Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		<ul style="list-style-type: none"> - 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.



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Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclozide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliosis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.

Fisheries

* Ponds should be free from unwanted vegetation and insects

Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change



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			with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

I. Meghachandra Singh
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MANIPUR BULLETIN

10th August, 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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 29.0 - 30.0 °C. The minimum temp. is likely to be 20.0 – 21.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 84 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Horticulture Crops			
Pea	Sowing		- Sowing of field pea/ garden pea at the foothills, both on terrace and across the slope, slightly colder area, where paddy can't be grown.
Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse/ temporary shed/ portable shed.
Cauliflower	Nursery		- Preparation for nursery of mid season varieties may be done preferably in rain sheltered area.
Onion	Nursery		- Preparation for nursery of onion may be done preferably in rain sheltered area.
Ginger	Rhizome formation	Leaf spot	- If one or two water soaked oval spots are observed then spray Mencozeb @ 2.5 g/ lit of water. - This will also prevent rhizome rot/ soft rot. - In valley area at present, instead of doing interculture/ weeding, proper drainage may be provided.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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 7th day. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose). - Vaccinate against H.S. @ 2 ml sub-cutaneously.
Pig	Above 3 months of age	Endoparasitic Swine Fever FMD	- De-worm using Piperazine liquid @ 3-6 ml/10 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age. - Vaccinate against FMD after 3 months of age.
	All susceptible age groups	Ectoparasitic	- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15 th day. - Use Butox @ 2 ml/lit of water while brushing the animal.



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Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
Paddy cum fish culture	water		<ul style="list-style-type: none"> Water depth of the trenches in paddy field should be maintained at 1.0m Rice bran and mustard oil cake (1:1) can be provided as supplementary feed Application of insecticide/pesticide should be prohibited in paddy cum fish culture.
Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
	Fish		<ul style="list-style-type: none"> 8000-10000 fingerlings should be stocked in 1ha

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MANIPUR BULLETIN

10th August, 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 11th to 15th August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (7th to 9th August, 2012)</u></p> <p>During the past three days the sky was partly cloudy to cloudy. 13.2 mm rainfall was recorded during past three days. Maximum temperature range observed was 30.6 – 34.2 °C, range of minimum temperature observed was 22.3 – 23.5 °C, mean relative humidity observed in morning and afternoon were 87.66 % and 69.67 % respectively. The average wind speed range was 3.2 – 4.7 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (11th to 15th August, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 30.0 °C. The minimum temp. is likely to be 20.0 – 21.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 84 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Sowing of late and short duration varieties of rice		<ul style="list-style-type: none"> - Sowing of late variety RC Maniphou 7 may be started. - In upland area, short duration variety RC Maniphou-6 may be sown. - Check in the field if the seeds are sprouted or not. Maintain a thin film of water.
	Vegetative		<ul style="list-style-type: none"> - Weeding may be done. - Maintain 8-10 cm of water level. - Ensure that the required amount of water is maintained in the field. Repairing of bands should also be done.
		Stem borer	<ul style="list-style-type: none"> - For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
Kharif maize	Silking	Shoot borer	<ul style="list-style-type: none"> - Weeding should be done in row spacing. - Apply 1-2 granules of Carbofuran 3G for shoot borer at the shoot whorl.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Hand weeding and earthing up should be done. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water. - Carbendazim @ 0.5g / lit of water may be sprayed to control Tikka disease.
Blackgram	Land preparation		<ul style="list-style-type: none"> - Land preparation for sowing black gram may be done. - 2 to 3 ploughing should be done for good tilt.
Storage			<ul style="list-style-type: none"> - 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.



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Horticulture Crops			
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Colocassia	Harvesting		- 3.5 to 4 months old crop whose leaves had started drying may be harvested on a day with no rain.
Rice bean	Sowing		- Sowing of local variety of rice bean in upland area or across the slope may be done.
Tomato	Nursery / transplanting		- Raise tomato in polyhouse/ temporary shed/ portable shed.
Cauliflower	Nursery		- Preparation for nursery of mid season varieties may be done preferably in rain sheltered area.
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Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
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Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal.
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Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming	Stage	Field	Agro-metrological advisories
Carp culture	nurseries	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. pH of pond water should be maintained at 7.0-7.5 if lower than the above agri-lime should be applied @250kg/ha at valley and 300kg at hilly areas.
		Feed	Feeds should be provided 2-3 times a day @ 5-10 body weight per day
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
	Grow -out	Pond and water	<ul style="list-style-type: none"> Water depth should be maintained at 1.0-1.5m. Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha. Agri-lime may be applied @250kg/ha at valley and 300kg at hilly areas. Greenish colouration of water is desirable if any change in colour, odour of water half of the water should be drained out and change with fresh water.
		Fish	<ul style="list-style-type: none"> 8000-10,000 fingerlings can be stocked in one ha in valley areas and 12,000-15,000 fingerlings can be stocked in hilly area Sampling of fish for growth, diseases (if any) should be done by regular netting.
		Feed	<ul style="list-style-type: none"> Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed. Feed can be fed at 2-3 times a day @ 3-5% body weight per day.
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Cat fish (Ngakra)	Pond and water		<ul style="list-style-type: none"> Water depth should be maintained at 0.5m -0.8m for nurseries Ponds should be manured with RCD @ 5000kg/ha at initial and 500-800kg/ha at 15 days interval
	Feed		<ul style="list-style-type: none"> Feed with high protein content 35-40% CP should be given @ 5-8% body weight.
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