



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (29th August to 2nd September, 2012)</u></p> <p>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 27.0 °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 95 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	<ul style="list-style-type: none"> - Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"> - Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 • Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (29th August to 2nd September, 2012)</u></p> <p>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 – 32.0 °C. The minimum temp. is likely to be 24.0 - 25.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 97 %. The average wind speed during next five days may reach upto max. value of 5 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	<ul style="list-style-type: none"> - Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"> - Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 • Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (29th August to 2nd September, 2012)</u></p> <p>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 27.0 - 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 99 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	<ul style="list-style-type: none"> - Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"> - Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 • Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal- East (29th August to 2nd September, 2012)</u></p> <p>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 27.0 - 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 97 %. Minimum RH is likely to reach a max of 82 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	<ul style="list-style-type: none"> - Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"> - Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 • Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th August, 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal- West (29th August to 2nd September, 2012)</u></p> <p>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 25.0 - 26.0 °C. The minimum temp. is likely to be 20.0 – 21.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 97 %. The average wind speed during next five days may reach upto max. value of 5 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - Light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	<ul style="list-style-type: none"> - Deworm using Oxyclonazide @ 10-15 mg/ kg body weight. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
Goat/ Sheep	All susceptible age groups	Endoparasite Haemorrhagic Septicemia	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"> - Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 • Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (29th August to 2nd September, 2012)</u></p> <p>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 - 27.0 °C. The minimum temp. is likely to be 20.0 - 21.0 °C. The maximum RH is likely to attain a max value of 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 3 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean	Vegetative	- Hairy caterpillar	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water.
Blackgram	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim 12% + Mancozeb 63% WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Cabbage	Nursery to transplanting and early vegetative		- Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weght. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ



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



“Integrated Agromet Advisory Services”

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	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	- Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (29th August to 2nd September, 2012)</u></p> <p>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 - 30.0 °C. The minimum temp. is likely to be 23.0 - 24.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 98 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<i>Field Crops</i>			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

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. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
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	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	- Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (29th August to 2nd September, 2012)</u></p> <p>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 27.0 – 28.0 °C. The minimum temp. is likely to be 21.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 86 %. The average wind speed during next five days may reach upto max. value of 6 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean/ Groundnut	Vegetative	<ul style="list-style-type: none"> - Hairy caterpillar - Tikka disease 	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - 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	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Tomato	Harvesting of early crop		Harvest the green mature fruits before ripening, i.e., before the fruits turn red in colour to extend its keeping quality and to avoid market glut or follow added programmes.
Cauliflower/ Cabbage/ Broccoli	Nursery to transplanting and early vegetative		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select slightly colder area for sowing area. - Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.



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



“Integrated Agromet Advisory Services”

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. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ
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	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	- Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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

28th 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 29th August to 2nd September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (24th to 26th August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 43.9 mm rainfall was recorded during past four days. Maximum temperature range observed was 29.2 – 32.8 °C, range of minimum temperature observed was 21.5 – 22.5 °C, mean relative humidity observed in morning and afternoon were 85.5 % and 73.3 % respectively. The average wind speed range was 2.6 – 3.6 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (29th August to 2nd September, 2012)</u></p> <p>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 25.0 - 27.0 °C. The minimum temp. is likely to be 20.0 °C. The maximum RH is likely to be 96 - 98 %. Minimum RH is likely to reach a max of 87 - 97 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Vegetative stage of late and short duration varieties of rice		<ul style="list-style-type: none"> - Maintain 10-15 cm of water level. - Provide good drainage system to maintain the required amount of water in the field.
	Tillering stage of normal crop		<ul style="list-style-type: none"> - 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 to prevent leakage of water from the field. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		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	Cob maturity		<ul style="list-style-type: none"> - Mature cob must be harvested in time.
Soybean	Vegetative	- Hairy caterpillar	<ul style="list-style-type: none"> - Plots must be kept clean to avoid incidence of harmful insect-pest. - If incidence of hairy caterpillar is observed, then spray Quinalphos 25 EC or Chloropyriphos 20 EC @ 2 ml/ lit of water.
Blackgram	Sowing		<ul style="list-style-type: none"> - Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
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 of crops like maize, rapeseed, etc. must be stored in RC-seed bins after proper drying. Check for germination of seeds. Clean and dry the seeds.



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



“Integrated Agromet Advisory Services”

Horticulture Crops			
Brinjal	Fruiting to harvesting	Fruit and shoot borer	- Avoid the use of chemical pesticides. Instead, use sex hormone lure of <i>Lencinodes orbonolis</i> as it is in harvesting stage.
Bottle gourd, pumpkin	Late harvesting	Fruit fly	Use Methyl Euginol as pheromone trap.
Turmeric	Top dressing		- Follow interculture operation and earthing up. - Apply 40 kg DAP, 20 kg MOP in a hectare area.
Citrus		Trunk borer	- Spray with 1% Bordeaux mixture or Blitox @ 3 g/lit of water. - Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plaster with mud.
Passion fruit		Termite	- Spray Benlate @ 0.5g/lit of water or Cabendazim12% + Mancozeb 63%WP @ 1 mg/ lit of water. - For termite, soil application of Chloropyriphos 10%G @ 25kg/ha near the base of the vine is recommended.
French bean & Broad bean	Sowing		- Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type. - If already sown, provide mulching material or give minimum watering at least once or twice in a week as required.
Cowpea	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
Cabbage	Nursery to transplanting and early vegetative		- Spray Malathion or Monocrotophos against mealy bug and aphid as prophylactic measure in those area where incidence of these insect pest had been reported in past. - Transplant the saplings into the main field if the nursery is ready. - light irrigation may be provided to the crops that has been already transplanted in foothills and slightly upper area.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.
		Coccidiosis	- Administer Coximar @ 3g/5 lit of water as preventive measure against Coccidiosis for 4 days.
		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).
			- If the litter material has become moist then apply lime powder @ 1 kg/ 100ft ² area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises.
Cattle / Buffalo	All susceptible age groups	Fascioliosis Skin infection	- Deworm using Oxyclonazide @ 10-15 mg/ kg body weght. - Use Butox @ 2 ml/lit of water while brushing the animal. - For new born calf, administer tetracycline (tab. Or powder) @ 5mg/ kg body weight consecutively for 4 days. - Vaccinate the animals above 3 months of age against FMD, HS & BQ



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



“Integrated Agromet Advisory Services”

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	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	- Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - 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.
		Fish	1.0-10.0 million spawn can be stock in 1 ha pond
Carp culture	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.
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 Application of insecticide/pesticide should be prohibited in paddy cum fish culture.

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