



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



## “Integrated Agromet Advisory Services”

### MANIPUR BULLETIN

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 29.0 °C. The minimum temp. is likely to be 18.0 – 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 86 %. 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
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cauliflower/ Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.



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		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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



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### MANIPUR BULLETIN

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 29.0 - 33.0 °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 87 %. 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
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cauliflower/ Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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).
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<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
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<b>Pig</b>	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.



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* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
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**21<sup>st</sup> August, 2012**

#### **Churachandpur**

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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
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<b>Storage</b>			- 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.



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<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
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<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
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<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
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<b>Pig</b>	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.





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		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calcicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
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		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
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Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal- East (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate 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 17.0 – 19.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 91 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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**Manipur Centre, Lamphelpat, Imphal - 795 004**



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<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cauliflower/ Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.



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



**“Integrated Agromet Advisory Services”**

		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calcicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal- West (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 29.0 °C. The minimum temp. is likely to be 17.0 – 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 91 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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**Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cauliflower/ Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.





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



**“Integrated Agromet Advisory Services”**

		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calcicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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



## “Integrated Agromet Advisory Services”

### MANIPUR BULLETIN

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u>	<u>Weather forecast for next five days of Senapati (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u>
During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.	During next five days, there is likely to have light to moderate rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 27.0 - 29.0 °C. The minimum temp. is likely to be 17.0 – 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 86 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean</b>	Vegetative	- Hairy caterpillar	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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**Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.



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



**“Integrated Agromet Advisory Services”**

		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calcicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate 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 – 22.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 88 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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**“Integrated Agromet Advisory Services”**

<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cauliflower/ Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.





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		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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## “Integrated Agromet Advisory Services”

### MANIPUR BULLETIN

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 29.0 °C. The minimum temp. is likely to be 17.0 – 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 87 %. 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
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean/ Groundnut</b>	Vegetative	- Hairy caterpillar - Tikka disease	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cauliflower/ Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.



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**“Integrated Agromet Advisory Services”**

		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calcicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**21<sup>st</sup> 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 22<sup>nd</sup> to 26<sup>th</sup> August, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (17<sup>th</sup> to 20<sup>th</sup> August, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 15.2 mm rainfall was recorded during past four days. Maximum temperature range observed was 23.9 – 34.8 °C, range of minimum temperature observed was 21.6 – 23.4 °C, mean relative humidity observed in morning and afternoon were 80.75 % and 76.75 % respectively. The average wind speed range was 0.6 – 4.8 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (22<sup>nd</sup> to 26<sup>th</sup> August, 2012)</u></p> <p>During next five days, there is likely to have light to moderate rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 27.0 - 28.0 °C. The minimum temp. is likely to be 16.0 – 20.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 83 %. 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
<b>Field Crops</b>			
<b>Rice</b>	Transplanting of late and short duration varieties of rice		- Late variety RC Maniphou 7 may be transplanted wherever water source persists.
	Tillering stage of normal crop		- 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. - Top dress by applying 33kg Urea/ha at 25–30 days after transplanting.
		Stem borer	- For stem borer, spray Chlorantraliniprol 23.5% @ 40 ml in 500lit of water/ha or @ 1 ml/ 12 lit of water.
<b>Kharif maize</b>	Cob formation to maturity		- Mature cob must be harvested in time.
<b>Soybean</b>	Vegetative	- Hairy caterpillar	- Hand weeding should be done. - 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.
<b>Blackgram</b>	Sowing		Blackgram may be sown as alley crop at maturity stage of rice crop and in the upland fields where rice was not successful.
<b>Storage</b>			- 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.



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**“Integrated Agromet Advisory Services”**

<b>Horticulture Crops</b>			
<b>Tree bean</b>		Trunk borer	-Apply Carbofuran 3G @ 100-500 gm per plant at the base of the plant (dose depends on the age of the plant).
<b>French bean</b>	Land preparation to sowing		- Land preparation at slightly upland area may be done. Sowing may also be done in raised bed in low lying area. Sow both dwarf and pole type.
<b>Cowpea</b>	Fruiting	Pod borer	- Use sex pheromone lure of <i>Helicoverpa armigera</i> as it is in bearing stage
<b>Broad bean</b>	Land preparation		Land preparation for sowing of broad bean in slightly shaded upland area may be done.
<b>Cabbage</b>	Nursery		- Soil treatment with Captan 50WP or with formaldehyde is very essential. Seed treatment is also good as prophylactic measure. - Select rain sheltered 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.
<b>Animal Sciences</b>			
<b>Name of the animal</b>	<b>Growth stage</b>	<b>Disease/ infestation</b>	<b>Agro-meteorological advisories</b>
<b>Poultry</b>	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once.
		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 <sup>2</sup> area. - Spray disinfectant B-904 @ 4 ml/lit of water around the farm premises. - Atmospheric moisture may introduce harmful organisms in your farm. The farm premises must be clean with proper ventilation of sheds - Apply fly/ mosquito repellent in & outside the farm.
<b>Cattle / Buffalo</b>	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. - Take up measures to dispose-off dung and urine in proper place & avoid it from reach of fly/ mosquito by putting polythene sheet to cover the pit. - 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
<b>Goat/ Sheep</b>	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.
<b>Pig</b>	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.





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**Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

		FMD	<ul style="list-style-type: none"> <li>- Vaccinate against FMD after 3 months of age.</li> <li>- Administer Trifer/ Irolive (liquid) @ 1ml to all new piglets for 5 days.</li> <li>- Mother pig should be provided fortified feed with calcium source (like Calicare).</li> <li>- Supply creep feed to piglets after 10 days for better growth &amp; development.</li> </ul>
	All susceptible age groups	Ectoparasitic	<ul style="list-style-type: none"> <li>- Advocate tab. Ivermectin/Ivermectol @ 3mg/ kg body weight and repeat the dose on 15<sup>th</sup> day.</li> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Fisheries</b>			
* 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"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• 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.</li> </ul>
		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
Carp culture	Grow -out	Pond and water	<ul style="list-style-type: none"> <li>• Water depth should be maintained at 1.0-1.5m.</li> <li>• Regular manuring at interval of 30 days should be done with a slurry of RCD @ 1500kg/ha.</li> <li>• Agri-lime may be applied @ 250kg/ha at valley and 300kg at hilly areas.</li> <li>• 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.</li> </ul>
		Fish	<ul style="list-style-type: none"> <li>• 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</li> <li>• Sampling of fish for growth, diseases (if any) should be done by regular netting.</li> </ul>
		Feed	<ul style="list-style-type: none"> <li>• Well balanced feed fortified with vitamins and minerals should be provided as supplementary feed.</li> <li>• Feed can be fed at 2-3 times a day @ 3-5% body weight per day.</li> </ul>
Paddy cum fish culture		water	<ul style="list-style-type: none"> <li>• Water depth of the trenches in paddy field should be maintained at 1.0m</li> <li>• Rice bran and mustard oil cake (1:1) can be provided as supplementary feed</li> <li>• Application of insecticide/pesticide should be prohibited in paddy cum fish culture.</li> </ul>

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