



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy. The maximum temp. is likely to be 25.0 - 26.0 °C. The minimum temp. is likely to be 17.0 -18.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 85 %. The average wind speed during next five days is likely to be very low.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
<b>Field Crops</b>			
<b>Rice</b>	Maturity stage	Grass hopper Neck blast	- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage. - If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water. - Drain out excess water from the fields in which the crop is at maturity stage.
<b>Zero tillage Rapeseed</b>			- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.
<b>Soybean</b>	Pod maturity to harvesting		- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.
<b>Groundnut</b>	Pod maturity to harvesting and post harvesting		- Mature crops may be harvested. Harvested pods should be dried in sunlight for 3-4 days by spreading in a thin layer on a threshing floor. The pods should not have more than 5-8 % moisture. Frequent drying is suggested.
<b>Blackgram</b>	Flowering to fruiting		- Weeding may be done.
<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.



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



**“Integrated Agromet Advisory Services”**

<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
		Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.



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Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
Cattle / Buffalo	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
<div>* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually. * Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.</div>			

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



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy but mainly cloudy on 20<sup>th</sup>. The maximum temp. is likely to be 29.0 °C. The minimum temp. is likely to be 22.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 90 %. The average wind speed during next five days may reach upto max. value of 3 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>	Maturity stage	Grass hopper Neck blast	<ul style="list-style-type: none"> <li>- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage.</li> <li>- If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water.</li> <li>- Drain out excess water from the fields in which the crop is at maturity stage.</li> </ul>
<b>Zero tillage Rapeseed</b>			<ul style="list-style-type: none"> <li>- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.</li> </ul>
<b>Soybean</b>	Pod maturity to harvesting		<ul style="list-style-type: none"> <li>- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.</li> </ul>
<b>Groundnut</b>	Pod maturity to harvesting and post harvesting		<ul style="list-style-type: none"> <li>- Mature crops may be harvested. Harvested pods should be dried in sunlight for 3-4 days by spreading in a thin layer on a threshing floor. The pods should not have more than 5-8 % moisture. Frequent drying is suggested.</li> </ul>
<b>Blackgram</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days.</li> <li>- 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.</li> </ul>
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Weather conditions now are favourable for nursery raising.</li> <li>- 50-60 days old seedlings may be transplanted.</li> </ul>



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<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
		Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.



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Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
Cattle / Buffalo	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
<p>* De-worming may be done before 15 days of vaccination.</p> <p>* Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually.</p> <p>* Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.</p>			

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**MANIPUR BULLETIN**

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy. The maximum temp. is likely to be 26.0 - 27.0 °C. The minimum temp. is likely to be 18.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 93 %. 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>	Maturity stage	Grass hopper Neck blast	- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage. - If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water. - Drain out excess water from the fields in which the crop is at maturity stage.
<b>Zero tillage Rapeseed</b>			- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.
<b>Soybean</b>	Pod maturity to harvesting		- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.
<b>Groundnut</b>	Pod maturity to harvesting and post harvesting		- Mature crops may be harvested. Harvested pods should be dried in sunlight for 3-4 days by spreading in a thin layer on a threshing floor. The pods should not have more than 5-8 % moisture. Frequent drying is suggested.
<b>Blackgram</b>	Flowering to fruiting		- Weeding may be done.
<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.



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



**“Integrated Agromet Advisory Services”**

<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
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		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
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<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.



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



**“Integrated Agromet Advisory Services”**

<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
		Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.



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



**“Integrated Agromet Advisory Services”**

Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
Cattle / Buffalo	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
<div>* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually. * Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.</div>			

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



## “Integrated Agromet Advisory Services”

### MANIPUR BULLETIN

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal-West (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall except on 19<sup>th</sup> on which there is likely to have light rainfall. The sky is likely to remain mainly clear to partly cloudy. The maximum temp. is likely to be 24.0 - 25.0 °C. The minimum temp. is likely to be 15.0 -16.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 89 %. The average wind speed during next five days may reach upto max. value of 3 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>	Maturity stage	Grass hopper Neck blast	- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage. - If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water. - Drain out excess water from the fields in which the crop is at maturity stage.
<b>Zero tillage Rapeseed</b>			- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.
<b>Soybean</b>	Pod maturity to harvesting		- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.
<b>Groundnut</b>	Pod maturity to harvesting and post harvesting		- Mature crops may be harvested. Harvested pods should be dried in sunlight for 3-4 days by spreading in a thin layer on a threshing floor. The pods should not have more than 5-8 % moisture. Frequent drying is suggested.
<b>Blackgram</b>	Flowering to fruiting		- Weeding may be done.
<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.



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



**“Integrated Agromet Advisory Services”**

<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
		Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.



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



**“Integrated Agromet Advisory Services”**

Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
Cattle / Buffalo	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
<p>* De-worming may be done before 15 days of vaccination.</p> <p>* Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually.</p> <p>* Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.</p>			

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



## “Integrated Agromet Advisory Services”

### MANIPUR BULLETIN

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy. The maximum temp. is likely to be 24.0 - 25.0 °C. The minimum temp. is likely to be 14.0 - 15.0 °C. The maximum RH is likely to attain a max value of 98 %. 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>	Maturity stage	Grass hopper  Neck blast	- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage. - If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water. - Drain out excess water from the fields in which the crop is at maturity stage.
<b>Zero tillage Rapeseed</b>			- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.
<b>Soybean</b>	Pod maturity to harvesting		- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.
<b>Blackgram</b>	Flowering to fruiting		- Weeding may be done.
<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.
<b>Tree bean</b>		Trunk borer	- Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.



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



**“Integrated Agromet Advisory Services”**

<b>Pea</b>	Land preparation and sowing		<ul style="list-style-type: none"> <li>- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth.</li> <li>- Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.</li> </ul>
<b>Cabbage</b>	Nursery raising		<ul style="list-style-type: none"> <li>- Nursery raising for second crop of cole crops may be done at the earliest.</li> <li>- 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.</li> </ul>
		Cut-worm	<ul style="list-style-type: none"> <li>- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.</li> </ul>

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>• To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>• To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>• Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>• Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>• Feed should be provided 2 times @ 5% body weight per day.</li> <li>• Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	<ul style="list-style-type: none"> <li>- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight.</li> <li>- Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).</li> </ul>
<b>Pig</b>	Above 3 months of age	Endoparasite	<ul style="list-style-type: none"> <li>- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.</li> </ul>
		Swine Fever	<ul style="list-style-type: none"> <li>- Vaccinate against Swine Fever after 3 months of age.</li> </ul>
	All susceptible age groups	Coccidiosis	<ul style="list-style-type: none"> <li>- Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days.</li> </ul>
		Ectoparasite	<ul style="list-style-type: none"> <li>- Use Butox @ 2 ml/lit of water while brushing the animal.</li> </ul>
<b>Poultry</b>	All susceptible age groups	Endoparasite	<ul style="list-style-type: none"> <li>- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month.</li> <li>- Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.</li> </ul>
		Ranikhet	<ul style="list-style-type: none"> <li>- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day.</li> <li>- give Lasota strain at 10-12 weeks</li> <li>- give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks.</li> <li>- Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).</li> </ul>
	7th to 14th week	Fowl Pox	<ul style="list-style-type: none"> <li>- Vaccinate 6-7 wks. and 14 wks. old birds.</li> <li>- Apply Iodine tincture/ Betadine liq. on pox growth daily.</li> </ul>



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



**“Integrated Agromet Advisory Services”**

<b>Cattle / Buffalo</b>	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
<p>* De-worming may be done before 15 days of vaccination.</p> <p>* Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually.</p> <p>* Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.</p>			

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy but mainly cloudy on 17<sup>th</sup>. The maximum temp. is likely to be 28.0 - 29.0 °C. The minimum temp. is likely to be 19.0 -21.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 90 %. The average wind speed during next five days may reach upto max. value of 3 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>	Maturity stage	Grass hopper  Neck blast	- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage. - If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water. - Drain out excess water from the fields in which the crop is at maturity stage.
<b>Zero tillage Rapeseed</b>			- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.
<b>Soybean</b>	Pod maturity to harvesting		- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.
<b>Groundnut</b>	Pod maturity to harvesting and post harvesting		- Mature crops may be harvested. Harvested pods should be dried in sunlight for 3-4 days by spreading in a thin layer on a threshing floor. The pods should not have more than 5-8 % moisture. Frequent drying is suggested.
<b>Blackgram</b>	Flowering to fruiting		- Weeding may be done.
<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.



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



**“Integrated Agromet Advisory Services”**

<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
		Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.



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



**“Integrated Agromet Advisory Services”**

Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
Cattle / Buffalo	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually. * Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.			

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

**MANIPUR BULLETIN**

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy. The maximum temp. is likely to be 25.0 - 26.0 °C. The minimum temp. is likely to be 16.0 -18.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 78 %. 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>	Maturity stage	Grass hopper Neck blast	- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage. - If neck blast is observed, spray <i>Tricyclazole</i> 75WP @ 0.6g/ lit water or <i>Ediphenphos</i> 50EC @ 1ml/ lit water or <i>Propiconazole</i> 25EC @ 1ml/lit water. - Drain out excess water from the fields in which the crop is at maturity stage.
<b>Zero tillage Rapeseed</b>			- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.
<b>Soybean</b>	Pod maturity to harvesting		- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.
<b>Groundnut</b>	Pod maturity to harvesting and post harvesting		- Mature crops may be harvested. Harvested pods should be dried in sunlight for 3-4 days by spreading in a thin layer on a threshing floor. The pods should not have more than 5-8 % moisture. Frequent drying is suggested.
<b>Blackgram</b>	Flowering to fruiting		- Weeding may be done.
<b>Storage</b>			- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, 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.
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		- Weather conditions now are favourable for nursery raising. - 50-60 days old seedlings may be transplanted.



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



**“Integrated Agromet Advisory Services”**

<b>Tree bean</b>		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).
<b>Potato</b>	Planting/ land preparation		- Plant the seed tubers when the soil is relatively dry. - Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.
<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cauliflower</b>	Nursery to transplanting		- As second crop of cauliflower, mid-varieties like White Flash, Candid Charm may be transplanted after the harvest of early crop if the 28-30 days old seedlings are available
<b>Cabbage / Cauliflower/ Broccoli</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
		Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.



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



**“Integrated Agromet Advisory Services”**

Poultry	All susceptible age groups	Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
Cattle / Buffalo	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually. * Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.			

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## “Integrated Agromet Advisory Services”

### MANIPUR BULLETIN

**16<sup>th</sup> October, 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 17<sup>th</sup> to 21<sup>st</sup> October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (12<sup>th</sup> to 15<sup>th</sup> October, 2012)</u></p> <p>During the past four days the sky was cloudy during morning hours and partly cloudy to mainly cloudy during afternoon hours. 43.8 mm rainfall was recorded during past four days. Maximum temperature range observed was 26.7 – 30.7 °C, range of minimum temperature observed was 17.6 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.25 % and 72.75 % respectively. The average wind speed range was 2.1 – 6.5 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (17<sup>th</sup> to 21<sup>st</sup> October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly clear to partly cloudy. The maximum temp. is likely to be 24.0 - 25.0 °C. The minimum temp. is likely to be 14.0 - 15.0 °C. The maximum RH is likely to attain a max value of 97 %. Minimum RH is likely to reach a max of 88 %. The average wind speed during next five days may reach upto max. value of 3 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>	Maturity stage	Grass hopper Neck blast	<ul style="list-style-type: none"> <li>- Slant the panicles with bamboo (pou namba) in the fields with the crop at maturity stage.</li> <li>- If neck blast is observed, spray <i>Tricyclazole 75WP</i> @ 0.6g/ lit water or <i>Ediphenphos 50EC</i> @ 1ml/ lit water or <i>Propiconazole 25EC</i> @ 1ml/lit water.</li> <li>- Drain out excess water from the fields in which the crop is at maturity stage.</li> </ul>
<b>Zero tillage Rapeseed</b>			<ul style="list-style-type: none"> <li>- In foot-hills and terraces, sowing of zero tillage rapeseed (var: M 27) may be started just after the harvest of rice crop.</li> </ul>
<b>Soybean</b>	Pod maturity to harvesting		<ul style="list-style-type: none"> <li>- Mature crops may be harvested. Grain should be fully sundried to (10-12) % moisture. The grain should be stored in well ventilated rooms.</li> </ul>
<b>Blackgram</b>	Flowering to fruiting		<ul style="list-style-type: none"> <li>- Weeding may be done.</li> </ul>
<b>Storage</b>			<ul style="list-style-type: none"> <li>- To prevent the infestation of pest/ fungi in stored grains or attack of rodents, proper care must be taken. Provide proper ventilation or sun dry the bags/ grains on sunny days.</li> <li>- 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.</li> </ul>
<b>Horticulture Crops</b>			
<b>Onion</b>	Nursery		<ul style="list-style-type: none"> <li>- Weather conditions now are favourable for nursery raising.</li> <li>- 50-60 days old seedlings may be transplanted.</li> </ul>
<b>Tree bean</b>		Trunk borer	<ul style="list-style-type: none"> <li>- Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant at a distance of 1 to 1.5 ft away from the trunk before flowering (dose depends on the age of the plant).</li> </ul>
<b>Potato</b>	Planting/ land preparation		<ul style="list-style-type: none"> <li>- Plant the seed tubers when the soil is relatively dry.</li> <li>- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting.</li> </ul>



**ICAR Research Complex for N.E.H. Region**  
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<b>Pea</b>	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. Avoid sowing in wet area. Let the soil dry upto 6 inch depth. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water before sowing.
<b>Cabbage</b>	Nursery raising		- Nursery raising for second crop of cole crops may be done at the earliest. - 4-5 leaf stage/ 28-30 days old seedlings may be transplanted at the spacing of 45 x 45 cm or 50 x 50 cm.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.

**Fisheries**

\* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> <li>To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha.</li> <li>To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water.</li> <li>Stir the upper water using bamboo pole or any other means especially during morning.</li> <li>Pond water depth should be maintained at 1.0 m - 1.5 m.</li> <li>Feed should be provided 2 times @ 5% body weight per day.</li> <li>Regular checking of fish growth / incidence of diseases etc. should be done by netting.</li> </ul>

**Animal Sciences**

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
<b>Goat/ Sheep</b>	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
<b>Pig</b>	Above 3 months of age	Endoparasite	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- 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.
<b>Poultry</b>	All susceptible age groups	Ectoparasite	- Use Butox @ 2 ml/lit of water while brushing the animal.
		Endoparasite	- Deworm with Piperazine hexahydrate @ 50ml /100 birds in drinking water once every month. - Before and after deworming administer Brotone (liq.) @ 5-10 ml/100 birds.
		Ranikhet	- Vaccinate with strain live vaccine @ one drop on eyes or nostril. at 7th day. - give Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) at 18-20 weeks. - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.



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



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<b>Cattle / Buffalo</b>	All age groups except three months or below	Deworming against parasites (Amphistomes, Fascioliasis)	- Deworm using liq. Tolzan-F @ 10 mg/ kg body weight or 30 ml/ kg body weight.
		Spraying against ectoparasites (Tick, Lice, etc.)	- Use Butox @ 2 ml/lit of water while brushing the animal and spray the solution twice in a week.
<div>* De-worming may be done before 15 days of vaccination.</div> <div>* Vaccinate against FMD to all the animals above 3 months age, repeat after 6 months and follow annually.</div> <div>* Spraying of Acaricides may be undertaken fortnightly using different drugs alternately.</div>			

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