



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 27.0 - 28.0 °C. The minimum temp. is likely to be 20.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 89 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Flowering stage		- Roughing of off-types may be done.
		Leaf folder	- Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation		- Plots must be kept clean to avoid incidence of harmful insect-pest.
		Hairy caterpillar	- Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation		- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar.
		Tikka disease	- Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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Manipur Centre, Lamphelpat, Imphal - 795 004



“Integrated Agromet Advisory Services”

Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidacloprid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

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



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MANIPUR BULLETIN

25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 29.0 - 31.0 °C. The minimum temp. is likely to be 24.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 93 %. 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
Field Crops			
Rice	Flowering stage	Leaf folder	- Roughing of off-types may be done. - Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation	Tikka disease	- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar. - Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidaclorprid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

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25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 27.0 - 28.0 °C. The minimum temp. is likely to be 21.0 °C. The RH is likely to be above 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
Field Crops			
Rice	Flowering stage	Leaf folder	- Roughing of off-types may be done. - Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation	Tikka disease	- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar. - Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidaclorpid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only.
		Swine Fever	- Vaccinate against Swine Fever after 3 months of age.
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			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
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25th September, 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 26th to 30th September, 2012 as given below:

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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
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Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation	Tikka disease	- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar. - Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidaclorprid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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



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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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

I. Meghachandra Singh
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Manipur Centre, Lamphelpat, Imphal - 795 004



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal- West (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 26.0 - 27.0 °C. The minimum temp. is likely to be 19.0 - 20.0 °C. The RH is likely to remain above 90 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Flowering stage	Leaf folder	- Roughing of off-types may be done. - Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation	Tikka disease	- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar. - Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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



“Integrated Agromet Advisory Services”

Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidacloprid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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



“Integrated Agromet Advisory Services”

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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 26.0 - 28.0 °C. The minimum temp. is likely to be 19.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 91 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Flowering stage	Leaf folder	- Roughing of off-types may be done. - Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.
Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age



ICAR Research Complex for N.E.H. Region
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			of the plant).
Cabbage	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidacloprid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozanide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 28.0 - 30.0 °C. The minimum temp. is likely to be 22.0 - 23.0 °C. The RH is likely to be above 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
<i>Field Crops</i>			
Rice	Flowering stage	Leaf folder	- Roughing of off-types may be done. - Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation	Tikka disease	- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar. - Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
<i>Horticulture Crops</i>			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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



“Integrated Agromet Advisory Services”

Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidacloprid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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



“Integrated Agromet Advisory Services”

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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

25th September, 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 26th to 30th September, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (21st to 25th September, 2012)</u></p> <p>During the past four days the sky was partly cloudy to cloudy. 26.6 mm rainfall was recorded during past four days. Maximum temperature range observed was 27.3 – 31.4 °C, range of minimum temperature observed was 21.3 – 23.2 °C, mean relative humidity observed in morning and afternoon were 90.5 % and 72.0 % respectively. The average wind speed range was 2.6 – 5.7 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (26th to 30th September, 2012)</u></p> <p>During next five days, there is likely to have light rainfall. The sky is likely to remain cloudy. The maximum temp. is likely to be 27.0 - 28.0 °C. The minimum temp. is likely to be 20.0 – 21.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 83 %. 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
Field Crops			
Rice	Flowering stage	Leaf folder	- Roughing of off-types may be done. - Apply <i>Cartap granules 4G @ 15 kg/ ha</i> or <i>Cartap spray @ 600ml/ lit of water</i>
Soybean	Pod formation	Hairy caterpillar	- Plots must be kept clean to avoid incidence of harmful insect-pest. - Spray <i>Chloropyrifos 20 EC @ 2ml/litre of water</i>
Groundnut	Pod formation	Tikka disease	- Plots must be kept clean to avoid incidence of harmful insect-pest like hairy caterpillar. - Spray of Carbendazim @ 0.5g/lit of water may be taken up to manage Tikka disease
Blackgram	Early vegetative		- In August sown crops, if leaf spot disease is observed then spray Carbendazim @ 0.5g/lit of water.
Storage			- 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.
Horticulture Crops			
Potato	Sowing/ land preparation		- As per situation/ topography of land, sowing or land preparation may be done. - Select known variety from reliable sources for commercial cultivation (Dept of Hort. & Soil Conservation, Govt. of Manipur, CPRI Shillong, etc.)
Pea	Land preparation and sowing		- Sowing of early variety (Arkel, Azad Pea) may be started. - For late maturity variety like Makhyat Mubi may be sown. Farmers who don't have pressure on land may select this variety. - Treat the seeds with Bavistin @ 2.5 mg/ lit of water.



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Vegetables	Nursery	Aphid	- If incidence of aphid is observed, apply Neem Seed Kernel Extract-5%.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with Carbofuran 3G @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Cabbage / Cauliflower/ Broccoli	Nursery raising		- Provide temporary shed to protect from rain - Raise the bed, use 1.5 to 2.0 m ² area for 10 gm packet seed. - Avoid over-crowding of seeds. - 80 m ² nursery area is required for transplanting in one hectare land.
	Vegetative to maturity (early variety crop of cabbage & cauliflower)	Plutella/ Daimond Black Moth	- Spray Dichlorovos 76 EC @ 0.5 ml/ lit of water if Plutella (Daimond Black Moth) is observed in the crop in vegetative sage. - In cauliflower that are in harvesting stage, hand picking is advised if Plutella/ Daimond Black Moth is seen.
Citrus	Field condition	Trunk borer	- Clean the bore holes of the borer infested trunk with a iron wire and insert a cotton swab soaked in petrol or inject Dichlorovos @ 2 ml/lit and plug with mud. - Paste the trunk with Bordeaux paste (1kg Copper Sulphate + 1 kg lime + 10 lit of water) upto 3-4 feet from the ground.
	Field condition and nursery	Leaf Miner	- Alternative spray of Imidaclorpid 17.8 SL @ 1ml/ lit of water and Fipronil @ 1ml/ lit of water.
Fisheries			
* Ponds should be free from unwanted vegetation and insects			
Type of Farming		Agro-metrological advisories	
Carp culture		<ul style="list-style-type: none">• Pond water depth should be maintained at 1.0-1.5m.• Net fencing should be done to prevent escape of fish during overflow of water with heavy rain.• Feed should be provided 2-3 times @ 3-5% body weight per day. A mixture of rice bran & oil cake powder in the ratio 1:1fortified with 1-2 % mineral mixture can be used as supplementary feed.• Regular checking of fish growth / incidence of diseases etc. should be done by netting.	
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
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.
		Vaccination against Black leg/B.Q. and Haemorrhagic Septicemia	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclonazide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).



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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.
		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 Lasota strain at 10-12 weeks - give Ranikhet (ND) killed vaccine (0.2 ml intra-muscularly) - Give R2B vaccine at the age of 45-60 days @0.5 ml (intra-muscularly).
			- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place.
	7th to 14th week	Fowl Pox	- Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on fox growth daily.
Pig	Above 3 months of age	Endoparasitic	- 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. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.
* De-worming may be done before 15 days of vaccination. * Vaccinate against FMD to all the animals above 3 months age.			

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