



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Bishnupur (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light on 13th then no rainfall thereafter. The sky is likely to remain mainly cloudy to cloudy upto 16th then mainly clear thereafter. The maximum temp. is likely to be 24.0 - 25.0 °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 79 %. 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
Field Crops			
Rice	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Groundnut	Pod maturity		- Mature crops may be harvested on sunny day.
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
Early Cauliflower	Harvesting		Use neem based pesticides or any other bio pesticides if <i>Plutella</i> (Diamond Black Moth) is seen attacking the curd or hand picking is advised.
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).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it.



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Manipur Centre, Lamphelpat, Imphal - 795 004



“Integrated Agromet Advisory Services”

			- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
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.



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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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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



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MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Chandel (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light on 13th and 15th and no rainfall during remaining days. The sky is likely to remain mainly cloudy to cloudy but mainly clear on 17th. The maximum temp. is likely to be 28.0 – 30.0 °C. The minimum temp. is likely to be 21.0 - 23.0 °C. The maximum RH is likely to attain a max value of 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 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Groundnut	Pod maturity		- Mature crops may be harvested on sunny day.
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
Early Cauliflower	Harvesting		Use neem based pesticides or any other bio pesticides if <i>Plutella</i> (<i>Diamond Black Moth</i>) is seen attacking the curd or hand picking is advised.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with <i>Carbofuran 3G</i> @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it.



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			- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
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.



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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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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Churachandpur

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<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light on 13th and 14th then no rainfall thereafter. The sky is likely to remain mainly cloudy to cloudy upto 16th but partly cloudy on 17th. The maximum temp. is likely to be 23.0 - 26.0 °C. The minimum temp. is likely to be 16.0 - 19.0 °C. The maximum RH is likely to attain a max value of 100 %. Minimum RH is likely to reach a max of 95 %. The average wind speed during next five days may reach upto max. value of 5 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Groundnut	Pod maturity		- Mature crops may be harvested on sunny day.
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
Early Cauliflower	Harvesting		Use neem based pesticides or any other bio pesticides if <i>Plutella</i> (<i>Diamond Black Moth</i>) is seen attacking the curd or hand picking is advised.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with <i>Carbofuran 3G</i> @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it.



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			- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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.
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Fisheries

* Ponds should be free from unwanted vegetation and insects

Type of Farming	Agro-metrological advisories
Carp culture	<ul style="list-style-type: none"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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.

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12th October, 2012

Imphal-East

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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/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).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it.



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			- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetrazole hydrochloride @ 15mg/kg body weight (single dose).
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.



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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Imphal-West (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light on 13th then no rainfall thereafter. The sky is likely to remain mainly cloudy to cloudy upto 15th then partly cloudy to clear thereafter. The maximum temp. is likely to be 23.0 - 25.0 °C. The minimum temp. is likely to be 14.0 -18.0 °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	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Groundnut	Pod maturity		- Mature crops may be harvested on sunny day.
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
Early Cauliflower	Harvesting		Use neem based pesticides or any other bio pesticides if <i>Plutella</i> (Diamond Black Moth) is seen attacking the curd or hand picking is advised.
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).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it.



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



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			- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
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.



**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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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

MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have no rainfall. The sky is likely to remain mainly cloudy to cloudy upto 16th but clear on 17th. The maximum temp. is likely to be 23.0 - 25.0 °C. The minimum temp. is likely to be 13.0 - 18.0 °C. The maximum RH is likely to attain a max value of 98 %. Minimum RH is likely to reach a max of 84 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
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).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it. - Treat the seeds with Sixer (<i>Carbendazim</i> + <i>Mencozeb</i>) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).



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Manipur Centre, Lamphelpat, Imphal - 795 004**



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Pea	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.
Cabbage	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
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).
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.



**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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Tamenglong (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light on 13th and 14th then no rainfall thereafter. The sky is likely to remain mainly cloudy to cloudy upto 16th but clear on 17th. The maximum temp. is likely to be 25.0 - 28.0 °C. The minimum temp. is likely to be 18.0 - 21.0 °C. The maximum RH is likely to attain a max value of 99 %. Minimum RH is likely to reach a max of 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	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Groundnut	Pod maturity		- Mature crops may be harvested on sunny day.
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
Early Cauliflower	Harvesting		Use neem based pesticides or any other bio pesticides if <i>Plutella</i> (<i>Diamond Black Moth</i>) is seen attacking the curd or hand picking is advised.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with <i>Carbofuran 3G</i> @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it.



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



“Integrated Agromet Advisory Services”

			- Treat the seeds with Sixer (Carbendazim + Mencozeb) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetrazole hydrochloride @ 15mg/kg body weight (single dose).
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.



**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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Thoubal (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light on 13th then no rainfall thereafter. The sky is likely to remain mainly cloudy to cloudy. The maximum temp. is likely to be 25.0 °C. The minimum temp. is likely to be 16.0 -18.0 °C. The maximum RH is likely to attain a max value of 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 4 km/hr.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rice	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Groundnut	Pod maturity		- Mature crops may be harvested on sunny day.
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
Early Cauliflower	Harvesting		Use neem based pesticides or any other bio pesticides if <i>Plutella</i> (<i>Diamond Black Moth</i>) is seen attacking the curd or hand picking is advised.
Tree bean		Trunk borer	-Apply DAP @ 200g + 100g MOP along with <i>Carbofuran 3G</i> @ 100-300 gm per plant in the root zone of tree bean (dose depends on the age of the plant).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it. - Treat the seeds with <i>Sixer</i> (<i>Carbendazim</i> + <i>Mencozeb</i>) @ 2 gm/lit of



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			water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).
Pea	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.
Cabbage / Cauliflower/ Broccoli	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
Capsicum	Nursery		- Raise nursery for off – season production. -Treat the bed to avoid from termites/ ants and soil borne diseases.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
Goat/ Sheep	All susceptible age groups	Endoparasite	- Deworm against Fascioliasis using Oxyclozide @ 15 mg/ kg body weight. - Give Tetramizole hydrochloride @ 15mg/kg body weight (single dose).
Pig	Above 3 months of age	Endoparasitic Swine Fever	- De-worm using Albendazole @ 1 ml/3 kg body weight orally once only. - Vaccinate against Swine Fever after 3 months of age.
	All susceptible age groups	Coccidiosis	- Advocate Metaprim @ 2g/ 10 kg body weight for 5-7 days. - Use Butox @ 2 ml/lit of water while brushing the animal.
			- Give Osteovet (liq.) @ 25 ml twice a day to the mother pig. - Give Sharcoferol vet @ 10 ml once daily.



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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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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., Haemorrhagic Septicemia and FMD	- Vaccinate with B.Q. & H.S. vaccine @ 20cc sub-cutaneously.

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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

12th 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 13th to 17th October, 2012 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal- West (9th to 11th October, 2012)</u></p> <p>During the past three days the sky was cloudy. 77.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 22.4 – 29.1 °C, range of minimum temperature observed was 18.8 – 20.3 °C, mean relative humidity observed in morning and afternoon were 91.0 % and 93.7 % respectively. The average wind speed range was 2.3 – 3.8 km/hr.</p>	<p><u>Weather forecast for next five days of Ukhrul (13th to 17th October, 2012)</u></p> <p>During next five days, there is likely to have light rainfall on 13th and 15th but no rainfall in remaining days. The sky is likely to remain partly cloudy to mainly cloudy 16th but clear on 17th. The maximum temp. is likely to be 23.0 - 25.0 °C. The minimum temp. is likely to be 13.0 - 18.0 °C. The maximum RH is likely to attain a max value of 97 %. Minimum RH is likely to reach a max of 91 %. 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	Grain filling to maturity stage	Grass hopper	- Slant the panicles with bamboo (pou namba) in those fields in which the crop is in maturity stage. - Provide proper drainage in and around the crop field.
Soybean	Pod maturity	- Rust	- Spray <i>Carbendazim</i> @ 1.5 g/lit of water
Blackgram	Vegetative	- Leaf spot	- Weeding may be done. - In August sown crops, if leaf spot disease is observed then spray <i>Carbendazim</i> @ 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			
Onion	Nursery		- Nursery raising may be started. - Raised beds with fertile soil and bright sun shine. Also sterilize the bed to avoid damping off. - 2.5 kg seeds are sufficient for transplanting 0.25 hectare or a sangam. And 15-20 m ² area is required for 2.5 kg seeds.
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).
Potato	Planting/ land preparation		- Go for land preparation/ planting, when the soil condition will be favourable for it. - Treat the seeds with Sixer (<i>Carbendazim</i> + <i>Mencozeb</i>) @ 2 gm/lit of water for ½ hour and let it dry in shed before planting. - Desirable seed size is 60-80 gm (or an egg size).



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Pea	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.
Cabbage	Nursery raising		- For continuous harvest, nursery may be raised as 2 nd and 3 rd crop. - Provide temporary shed using bamboo, dry twigs/ paddy straw or polythene to protect nursery from adverse weather.
		Cut-worm	- Apply <i>Chloropyrifos (1.5%) dust</i> @25 kg /ha.
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 sprays 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"> To reduce algal bloom/ pollution, apply Agrilime @ 200 kg/ha. To increase oxygen level in culture pond, drain out half of pond water and replace that with fresh and clean water. 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 1:1 fortified 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
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).
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.



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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).
	7th to 14th week	Fowl Pox	- Provide Calcicare @ 40-50 ml for 100 birds. - Mix lime powder @ 1 kg/100sq.ft. area thoroughly in litter. - Keep feed in dry place. - Vaccinate 6-7 wks. and 14 wks. old birds. - Apply Iodine tincture/ Betadine liq. on pox growth daily.
* De-worming may be done before 15 days of vaccination.			
* Vaccinate against FMD to all the animals above 3 months age.			
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.
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