



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Bishnupur (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 22.0 - 23.0 °C & minimum temp. 9.0 - 10.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 46 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

I. Meghachandra Singh
Scientist i/c,
Gramin Krishi Mausam Seva (GKMS)



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Chandel (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 23.0 - 24.0 °C & minimum temp. 10.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 51 % (minimum RH). The average wind speed may be 3-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyrphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

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Churachandpur

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During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Churachandpur (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 23.0 - 24.0 °C & minimum temp. 9.0 - 10.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 44 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyrphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

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MANIPUR BULLETIN

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Imphal-West

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Weather forecast for next five days of Imphal - East (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 23.0 - 24.0 °C & minimum temp. 10.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 41 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyrphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

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Gramin Krishi Mausam Seva (GKMS)



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Imphal - West (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 22.0 - 23.0 °C & minimum temp. 8.0 - 10.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 41 % (minimum RH). The average wind speed may be 2-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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



“Integrated Agromet Advisory Services”

Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

I. Meghachandra Singh
Scientist i/c,
Gramin Krishi Mausam Seva (GKMS)



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

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)</u></p> <p>During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). No rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.</p>	<p><u>Weather forecast for next five days of Senapati (18th to 22nd January, 2014)</u></p> <p>There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 22.0 - 23.0 °C & minimum temp. 9.0 - 10.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 40 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.</p>
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Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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

Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

I. Meghachandra Singh
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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Tamenglong (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 23.0 - 24.0 °C & minimum temp. 8.0 - 9.0 °C. Relative Humidity may reach a maximum value of 96 % (maximum RH) & 41 % (minimum RH). The average wind speed may be 3-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyrphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

I. Meghachandra Singh
Scientist i/c,
Gramin Krishi Mausam Seva (GKMS)



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Thoubal (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 23.0 - 24.0 °C & minimum temp. 9.0 - 10.0 °C. Relative Humidity may reach a maximum value of 100 % (maximum RH) & 48 % (minimum RH). The average wind speed may be 0-4 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyrphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

17th January, 2014

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 18th to 22nd January, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (14th to 16th January, 2014)

During the past three days the sky was partly cloudy to mainly cloudy but mainly clear on 15th Jan (morning). **No** rainfall was recorded during past three days. Maximum temperature range observed was 23.0 – 24.9 °C, range of minimum temperature observed was 7.4 – 8.0 °C, mean relative humidity observed in morning and afternoon were 88.3 % and 47.7 % respectively. The average wind speed range was 1.0 – 1.5 km/hr.

Weather forecast for next five days of Ukhrul (18th to 22nd January, 2014)

There may be no rain during next five days. Sky may be clear to partly cloudy with maximum temp. of 22.0 - 23.0 °C & minimum temp. 9.0 - 10.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 47 % (minimum RH). The average wind speed may be 3-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Rapeseed/ Mustard	Flowering to pod formation		- Irrigation may be given. - If flowering has started, then four bee boxes may be kept for one hectare crop area. Avoid spray of insecticides in such area.
		Aphid	- Spray Monocrotophos @ 1.5 ml/lit of water to the infected patches only or use yellow plates filled with water..
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Vegetative to flowering		- Light irrigation may be given if the soil is dry.
		Powdery Mildew	- Spray Bayleton (Triaclemofon 25%WP) @ 7.5 g/ pump or Dinocap (Karathane 46% EC) @ 7.5ml/ pump.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid. - For organic control against aphid, sprays that consist of azadirachtin, neem oil or pyrethrin may be used.
Rabi Maize	Sowing to vegetative		- Rabi maize may be sown upto this week as intercrop with pulses. Southern face of 60cm wide 40cm high ridges along east-west may be sown with maize and northern with pea seeds. - Thinning of pea may be done in vegetative stage of the crop.
Storage			- Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. Well ventilated rooms must be used for storage of grains/ seeds.
Horticulture Crops			
Vegetable crops (French bean, Pea, etc.)	Land preparation	Pre-mature wilting	To avoid pre-mature wilting, soil must be exposed to sun after proper ploughing. As prophylactic measure, a dormant spray of Bordeaux mixture (1:1:100) using 100 litres of water / sangam at least once in this week and another after 20-25 days. - Treat seed with Carbendazim@ 2-3g/ kg seed.
Potato	Vegetative		- If aphid is observed in small patches, wash off it with plain water but if it is severe, spray Cypermethrin 20 E.C. @ 1ml/ litre of water or Nuvan @ 0.5ml/litre of water. - Give light irrigation to attain optimum soil moisture. - If it is 40-45 days old, light hoeing/ earthing up may be done followed by top dressing with 30-35 Kg DAP/ sangam.
Cucurbits	Nursery		- Nurseries of bitter gourd, cucumber, sponge gourd, bottle gourd, pumpkin, etc. may be raised under polyhouse.



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Tomato	Vegetative to flowering		- Proper staking should be provided to support during fruiting phase.
	Sowing		- Tomato nurseries should be raised under low cost polyhouse - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m ² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m ² area keep the bed covered with gunny bag.
Onion/ Garlic	Vegetative		- Light irrigation may be given if the soil is dry.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	- Add Supercox @ 10g in 10 litres of drinking water for 2-3 days and repeat the same @ 10g in 20 litres of water after two days break. - Mix Kampro-H @ 500g in 1 ton of feed.
		Ranikhet disease	1. F-1 Strain may be first administered within 7 days of age and second dose may be given at 30days for all birds. 2. R ₂ B vaccine of 8-9 weeks of age group birds (layers). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers).
		Deworming	Deworming may be done using Piperazine liq. @ 40ml for 100 birds (layers) once only.
		Gumboro	- Gumboro disease vaccine (@ 1 drop/ bird in eye) when the bird is 14 days old.
		Management	- Increase energy feed upto 5% (like maize, rice bran, etc.). - Add antibiotic, Hostacycline/ Duaprin @ 2 g/ lit of drinking water for 7 days along with vitamin B & vitamin A. - Protect birds from cold by hanging polythene sheet/ Hessian cloth all around the wire mesh/ poultry shed. Use electric bulb or charcoal at night time to keep rooms warm in poultry shed. - To control increase of moisture inside the poultry shed, cross-ventilation for fresh air must be provided.
Sheep/ Goat	Above 3 months of age (as and when required)	Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra-dermally.
		Deworming	- Administer Banif Bolus orally @ 1 bolus/ 100 kg b. wt.
		Ectoparasite	Spray Butox @ 2ml in 1 lit of water for protection against mange and mites.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied with Livoferol @ 20ml daily.
Pig	Above 3 months of age (as and when required)	Swine Fever & FMD	- Vaccinate against swine fever & FMD after the age of 3 months.
		Ectoparasites	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40 kg b.wt. accompanied with Livozyme @ 10 ml twice daily.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.
		Wounds	- Himax ointment may be applied on the affected area/ wounds caused due to bites of warble flies.

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