



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th February, 2014

Churachandpur

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Churachandpur (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 23.0 – 26.0 °C & minimum temp. 8.0 – 9.0 °C. Relative Humidity may reach a maximum value of 95 % (maximum RH) & 37 % (minimum RH). The average wind speed may be 4-6 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	- Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

(I. Meghachandra Singh)
Scientist i/c,
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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th February, 2014

Imphal-East

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Imphal - East (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to 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 98 % (maximum RH) & 39 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	- Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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MANIPUR BULLETIN

11th February, 2014

Imphal-West

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Weather forecast for next five days of Imphal - West (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to 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 98 % (maximum RH) & 38 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	- Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

(I. Meghachandra Singh)
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MANIPUR BULLETIN

11th February, 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 12th to 16th February, 14 as given below:

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During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Senapati (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 22.0 – 24.0 °C & minimum temp. 3.0 – 6.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 38 % (minimum RH). The average wind speed may be 2 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.
Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.



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Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	<ul style="list-style-type: none"> - Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old. - Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

(I. Meghachandra Singh)
 Scientist i/c,
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**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th February, 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 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Tamenglong (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 7.0 – 9.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 37 % (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			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th February, 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 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Thoubal (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 23.0 – 25.0 °C & minimum temp. 6.0 – 8.0 °C. Relative Humidity may reach a maximum value of 94 % (maximum RH) & 38 % (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			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th February, 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 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Ukhrul (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 21.0 – 23.0 °C & minimum temp. 3.0 – 5.0 °C. Relative Humidity may reach a maximum value of 89 % (maximum RH) & 39 % (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			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.
Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.



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



“Integrated Agromet Advisory Services”

Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	<ul style="list-style-type: none"> - Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old. - Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

(I. Meghachandra Singh)
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**ICAR Research Complex for N.E.H. Region
Manipur Centre, Lamphelpat, Imphal - 795 004**



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

11th February, 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 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Bishnupur (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 24.0 – 25.0 °C & minimum temp. 7.0 – 8.0 °C. Relative Humidity may reach a maximum value of 94 % (maximum RH) & 38 % (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			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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



“Integrated Agromet Advisory Services”

Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	- Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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 by Livozyme @ 10 ml twice daily.
			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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

MANIPUR BULLETIN

11th February, 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 12th to 16th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (7th to 10th February, 2014)

During the past four days the sky was partly cloudy to cloudy and foggy during morning hours of 9th Feb. **2.2mm** rainfall was recorded during past four days. Maximum temperature range observed was 21.5 – 23.5 °C, range of minimum temperature observed was 5.0 – 11.5 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 51.3 % respectively. The average wind speed range was 3.9 – 5.5 km/hr.

Weather forecast for next five days of Chandel (12th to 16th February, 2014)

There may be light to moderate rains during next five days. Sky may be partly cloudy to cloudy with maximum temp. of 24.0 – 25.0 °C & minimum temp. 4.0 – 8.0 °C. Relative Humidity may reach a maximum value of 89 % (maximum RH) & 39 % (minimum RH). The average wind speed may be 4-5 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
<i>*Provisions may be made to harvest rain water. Drainage must be constructed well before rains.</i>			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare 700 m² land for raising pre-kharif rice nursery for transplanting in 1 ha land. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Nursery bed should be well puddled and leveled to avoid uneven stagnation of water. Treat seeds with insecticide. Sow 60kg of seeds in 700 m² of nursery bed.
Rapeseed/ Mustard	Siliqua to maturity	Pod borer	- Spray Imidachloprid @ 0.25 ml/ litre of water to the infected patches.
		Hairy caterpillar	- Spray Quinalphos or Chloropyriphos @ 2ml/litre of water to the infected patches only.
Pulses (Pea & Lentil)	Flowering & fruiting to maturity		- Retain healthy and early pods of selected plants for seeds.
		Aphid	- Spray Cypermethrin @2ml/lit of water or Nuvan @ 0.5ml/ lit of water against aphid.
Rabi Maize	Vegetative		<ul style="list-style-type: none"> - Earthing-up of rabi maize sown intercropped with pea or potato may be done. - When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.
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			
Potato	Maturity to harvesting		<ul style="list-style-type: none"> - For seed purpose: <ul style="list-style-type: none"> • Removal off-types and plants showing mottling, mosaic, crinkle, necrosis and leaf rolling should be followed. Also, remove plants showing symptoms of purple top roll. • Maturity days should be strictly maintained as per variety. - Harvest the crop after 10-15 days after haulm cutting.
Turmeric	Post Harvesting		<ul style="list-style-type: none"> - Select the site for storing rhizome seeds in pits, preferably upland area free from water logging problem. - Put 20cm thick layer of sand at the base of pit of size 1m x 1m x 1m or 1.5m x 0.75m x 0.75m and spread some dry twigs above sand layer and side walls of pit to avoid direct contact of rhizome with soil. - Treat the rhizome seeds with insecticide/ pesticide to avoid scale insects and rot. Place it in the pit, cover with dry twigs and plaster pit with mud.



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Cucurbits	Transplanting		<ul style="list-style-type: none"> - 3-4 leaves stage seedlings raised under the polyhouse may be transplanted in the open field having no water logging problem at a spacing of 2m x 1m for water melon, 1m x 1m or less for cucumber as per variety. - Incorporate FYM in the soil preferably in pits. - For quick and fast growth low cost removable poly tunnels may be provided during the night to protect from low temp., if available.
Onion/ Garlic	Vegetative to initial bulb formation		<ul style="list-style-type: none"> - Keep the soil moist throughout the growing period/ vegetative phase. - If the bulb formation stage has started then it must be checked that the soil is not too dry also care should be taken that the neck portion should be above the ground level.
Tomato	Sowing		<ul style="list-style-type: none"> - Tomato nurseries should be raised under low cost polyhouse. - Nursery bed of 0.75m x 4m may be prepared and mix Carbendazim @ 5g/ 3m² area, keep the bed covered with gunny bag for at least 24 hrs. - Sow seeds @ 10g/ 3m² area keep the bed covered with gunny bag.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Ranikhet disease	<ul style="list-style-type: none"> 1. F-1 Strain first dose within 7 days of age and second dose may be given at 30days for all birds (eye drop/ ocular). 2. R₂B vaccine to 8-9 weeks of age group birds (layers) (intra-muscularly @ 0.2 cc/ bird). 3. Killed ND virus vaccine of 16-18 weeks of age group birds (layers) (intra-muscularly).
		Deworming	Deworming may be done using Piperazine Citrate @ 50 ml in drinking water for 100 birds.
		Gumboro	- Gumboro disease vaccine (@ 1drop/ bird in eye) when the bird is 14 days old.
			- Spray B904 @ 2ml/ lit of water in and around the poultry shed.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Contagious Caprine Pluero-pneumonia (CCPP) in goat	- Vaccinate against Contagious Caprine Pluero-pneumonia intra- dermally @0.2 cc.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by 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.
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			For a pregnant sow, administer Sharkoferol Vet @ 20ml twice a day along with Ascagold susp. @ b15-20ml twice daily in feed.
Cattle / Buffalo/ Mithun	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 90ml / 300kg body weight.
		B.Q. & H.S.	- Vaccinate against B.Q. & H.S.
		Skin disease	- Spray Butox @ 2ml in 1 lit of water, twice a week.

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