



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Chandel (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 25.0 – 27.0 °C & minimum temp. 7.0 – 10.0 °C. Relative Humidity may reach a maximum value of 91 % (maximum RH) & 31 % (minimum RH). The average wind speed may be 3-6 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

<p><u>Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)</u></p> <p>The sky was clear to mainly clear during past three days. 11.6 mm rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.</p>	<p><u>Weather forecast for next five days of Churachandpur (22nd to 26th February, 2014)</u></p> <p>On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 6.0 – 9.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 32 % (minimum RH). The average wind speed may be 3-4 km/hr during next five days.</p>
--	---

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Imphal - East (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 23.0 – 27.0 °C & minimum temp. 7.0 – 10.0 °C. Relative Humidity may reach a maximum value of 99 % (maximum RH) & 31 % (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			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st February, 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Imphal - West (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 23.0 – 26.0 °C & minimum temp. 6.0 – 10.0 °C. Relative Humidity may reach a maximum value of 98 % (maximum RH) & 31 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Senapati (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 22.0 – 25.0 °C & minimum temp. 4.0 – 8.0 °C. Relative Humidity may reach a maximum value of 96 % (maximum RH) & 32 % (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			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Tamenglong (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 25.0 – 28.0 °C & minimum temp. 8.0 – 11.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 31 % (minimum RH). The average wind speed may be 2-3 km/hr during next five days.

Name of the crop	Stage	Pest and disease infestation	Agro-meteorological advisories
Field Crops			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Thoubal (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 24.0 – 26.0 °C & minimum temp. 6.0 – 9.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 31 % (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			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbandazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Ukhrul (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 21.0 – 24.0 °C & minimum temp. 3.0 – 7.0 °C. Relative Humidity may reach a maximum value of 88 % (maximum RH) & 32 % (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			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.
Animal Sciences			
Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

21st 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 22nd to 26th February, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (18th to 20th February, 2014)

The sky was clear to mainly clear during past three days. **11.6 mm** rainfall was recorded during past three days. Maximum temperature range observed was 21.5 – 25.5 °C, range of minimum temperature observed was 5.0 – 6.5 °C, mean relative humidity observed in morning and afternoon were 92.67 % and 54.67 % respectively. The average wind speed range was 1.3 – 2.6 km/hr.

Weather forecast for next five days of Bishnupur (22nd to 26th February, 2014)

On Monday light rain is predicted. Sky may be mainly clear to partly cloudy with maximum temp. of 24.0 – 27.0 °C & minimum temp. 7.0 – 10.0 °C. Relative Humidity may reach a maximum value of 97 % (maximum RH) & 31 % (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			
Pre-kharif Rice	Land Preparation to nursery		<ul style="list-style-type: none"> - Prepare land for raising pre-kharif rice nursery. Apply well decomposed FYM/ compost @ 1 t/ 700 m² at final leveling. - Select pure, well filled, disease free and cleaned seeds. Treat it with Carbendazim @ 2g/kg of seeds. Seed rate is 60kg/ 700 m² of nursery bed for transplanting in 1 ha land. Soak seeds in water for 24 - 36 hrs and incubate for 36 hrs before sowing for better germination. - Maintain 2-3 cm of water level initially and drain it out completely just before sowing. Later increase the water level just to submerge soil and expose green aerial sprouts.
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.
			- Crop may be harvested when 75% of crops turn yellow.
Pulses (Pea & Lentil)	Fruiting and maturity to harvesting		<ul style="list-style-type: none"> - Retain healthy and early pods of selected plants for seeds. - Harvest mature pods.
Rabi Maize	Vegetative		- Earthing-up of rabi maize sown intercropped with pea or potato may be done. Top dress with nitrogen fertilizer when the plant is knee high.
		Stem borer	- To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl.
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			
Banana			- For planting banana make pits of size 50x50x50cm. Fill the pit with top soil and well decomposed FYM/ compost 2-4 weeks before planting sucker.
Citrus	Nursery	Leaf Minor	- Spray Monocrotophos @ 1ml/ lit of water or Nuvan @ 0.05% or Cypermethrin @ 2 ml/ lit of water against leaf minor in nursery.
Tree bean/ Lime/ Lemon	Land preparation and collection of planting material		<ul style="list-style-type: none"> - Preparation of pits or field for planting tree bean/ lime/ lemon/ banana may be started. - Collection of good planting material from reliable source may be done.
Bhindi	Land preparation to sowing		Prepare land for sowing bhindi. Apply FYM during land preparation. Sowing of bhindi/ ladies finger may be done at the spacing of 30cm x 45cm.



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



“Integrated Agromet Advisory Services”

Ginger/ Turmeric	Land preparation		- Land preparation for planting of ginger/ turmeric may be started. Mix manures @ 20-25 t/ ha 15 days before planting.
Cucurbits	Transplanting		- 3 to 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. A light irrigation should be given just after transplanting. - Incorporate well decomposed FYM in the soil preferably in pits.
French Bean	Land preparation to sowing		- Prepare land for sowing French bean. Apply 25-30 t of FYM per ha during final land preparation. - Spacings: for dwarf variety like Pant Anupam (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkul hawai) at 60x60 cm with 2-3 seeds per hill. - Apply 12-13 kg Urea, 12-15 kg SSP and 40-45 kg MOP per ha at the time of sowing.
Tomato/ Brinjal	Transplanting		- 25 to 30 days old tomato seedlings may be transplanted in prepared land incorporated with well decomposed FYM at a spacing of 40-45cm x 50-60cm during evening/ cloudy day. Apply Sevin dust @ 2.5 – 5.0 g/ hill at the time of transplanting to protect the seedlings from caterpillar/ cutworm. - A light irrigation should be given regularly for establishment. - Spacing for brinjal is 60cm x 75cm.
Onion/ Garlic	Bulb formation		- During the bulb formation stage, check that the neck portion is not covered with soil.

Animal Sciences

Name of the animal	Growth stage	Disease/ infestation	Agro-meteorological advisories
Poultry	All susceptible age groups (as and when required)	Coccidiosis	Give supercox @ 1g/lit of water + 150gm of glucose and vitamin K for 5-7 days.
		Ranikhet disease	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. R ₂ B 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.
Sheep/ Goat	Above 3 months of age (as and when required)	Fascioliosis	- Administer Tolzan-F orally once @ 5ml / 15 kg body weight.
		Endoparasite	- Administer Minthal bolus @ 1 bolus/ 40kg b.wt. accompanied by Livoferol @ 20ml daily.
			- Administer Vimicon powder @ 15-20g/ day.
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.
			- Administer Minamil powder @ 15-20g/ day in feed.
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.

(I. Meghachandra Singh)
Scientist i/c, GKMS