



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



“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Senapati (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 23.0 °C & minimum temp. 6.0 – 7.0 °C. Relative Humidity may reach a maximum of 95 % (maximum RH) & 35 % (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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Land preparation to planting | | <ul style="list-style-type: none"> - Potato may be planted in prepared land. |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <ul style="list-style-type: none"> - Sowing of bhindi may be done at the spacing of 30cm x 45cm. |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhu hawaii) at 60x60 |



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|----------------------------|----------------|--|--|
| | | | 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 | Vegetative | | - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

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



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MANIPUR BULLETIN

28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Tamenglong (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 26.0 – 28.0 °C & minimum temp. 9.0 – 11.0 °C. Relative Humidity may reach a maximum of 94 % (maximum RH) & 36 % (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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <ul style="list-style-type: none"> If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times. |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <ul style="list-style-type: none"> Sowing of bhindi may be done at the spacing of 30cm x 45cm. |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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“Integrated Agromet Advisory Services”

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|------------------------|----------------|--|--|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

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



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MANIPUR BULLETIN

28th 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 1st to 5th March, 14 as given below:

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The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Thoubal (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 25.0 – 26.0 °C & minimum temp. 9.0 °C. Relative Humidity may reach a maximum of 87 % (maximum RH) & 33 % (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 | | | |
| Pre-kharif Rice | Land Preparation to nursery | | <ul style="list-style-type: none"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <p>If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.</p> |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <p>Sowing of bhindi may be done at the spacing of 30cm x 45cm.</p> |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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|------------------------|----------------|--|---|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul hawaii) 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

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



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MANIPUR BULLETIN

28th February, 2014

Ukhrul

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Weather forecast for next five days of Ukhrul (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 23.0 °C & minimum temp. 5.0 – 6.0 °C. Relative Humidity may reach a maximum of 83 % (maximum RH) & 34 % (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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
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| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Land preparation to planting | | <ul style="list-style-type: none"> - Potato may be planted in prepared land. |
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| | | | 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 | Vegetative | | - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

Animal Sciences

| Name of the animal | Growth stage | Disease/ infestation | Agro-meteorological advisories |
|-------------------------------------|---|----------------------|--|
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| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
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28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Bishnupur (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 27.0 – 28.0 °C & minimum temp. 9.0 °C. Relative Humidity may reach a maximum of 89 % (maximum RH) & 34 % (minimum RH). The average wind speed may be 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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <ul style="list-style-type: none"> If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times. |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <ul style="list-style-type: none"> Sowing of bhindi may be done at the spacing of 30cm x 45cm. |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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



“Integrated Agromet Advisory Services”

| | | | |
|------------------------|----------------|--|---|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul hawaii) 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

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



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“Integrated Agromet Advisory Services”

MANIPUR BULLETIN

28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Chandel (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 25.0 – 26.0 °C & minimum temp. 9.0 °C. Relative Humidity may reach a maximum of 80 % (maximum RH) & 34 % (minimum RH). The average wind speed may be 5-6 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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <p>If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.</p> |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <p>Sowing of bhindi may be done at the spacing of 30cm x 45cm.</p> |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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“Integrated Agromet Advisory Services”

| | | | |
|----------------------------|----------------|--|--|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

(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

28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Churachandpur (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 24.0 – 25.0 °C & minimum temp. 7.0 - 8.0 °C. Relative Humidity may reach a maximum of 92 % (maximum RH) & 35 % (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 | | | |
| Pre-kharif Rice | Land Preparation to nursery | | <ul style="list-style-type: none"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <ul style="list-style-type: none"> If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times. |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <ul style="list-style-type: none"> Sowing of bhindi may be done at the spacing of 30cm x 45cm. |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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



“Integrated Agromet Advisory Services”

| | | | |
|------------------------|----------------|--|--|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

(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

28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Imphal - East (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 27.0 °C & minimum temp. 8.0 – 9.0 °C. Relative Humidity may reach a maximum of 95 % (maximum RH) & 32 % (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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <p>If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.</p> |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <p>Sowing of bhindi may be done at the spacing of 30cm x 45cm.</p> |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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



“Integrated Agromet Advisory Services”

| | | | |
|------------------------|----------------|--|--|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

(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

28th 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 1st to 5th March, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (25th to 27th February, 2014)

The sky was mainly clear but mainly cloudy during afternoon hours of 25th & 27th Feb. No rainfall was recorded during past three days. Maximum temperature range observed was 25.8 – 27.9 °C, range of minimum temperature observed was 7.6 – 8.4 °C, mean relative humidity observed in morning and afternoon were 86.0 % and 43.7 % respectively. The average wind speed range was 3.1 – 5.7 km/hr.

Weather forecast for next five days of Imphal - West (1st to 5th March, 2014)

Light rain is predicted on Sunday & Monday. Sky may be mainly clear to partly cloudy with maximum temp. of 26.0 – 28.0 °C & minimum temp. 8.0 – 9.0 °C. Relative Humidity may reach a maximum of 93 % (maximum RH) & 35 % (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"> - Maintain the water level in nursery just to submerge soil and expose green aerial sprouts. - After 7-10 days of sowing, apply 17 kg Urea and 3.5 kg MOP per 700m² as top dressing along with 2 kg Carbofuran (3G) and spray 40 g of Carbendazim 50% WP in 40 litres of water. - Before first ploughing of main field, apply well decomposed FYM @10-15 t/ha. After a cross plough, irrigate the field to 5-7 cm (2-3) inches depth. Submerge soil for 15-20 days before planting to obtain weed free plot. |
| Rapeseed/ Mustard | Maturity to harvesting | | <ul style="list-style-type: none"> - Crop may be harvested when seeds are dark and produce rattling sound on shaking and 75% of the siliquae mature. The crop should be harvested in the morning before drying of morning dew to avoid shattering of pods. |
| Pulses (Pea & Lentil) | 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 | | <ul style="list-style-type: none"> - Earthing-up of rabi maize crop and top dress with nitrogen fertilizer may be done if the plant is knee high. |
| | | Stem borer | <ul style="list-style-type: none"> - To control the infestation of stem borer, apply few granules of Carbofuran 3G at maize whorl. |
| Storage | | | <ul style="list-style-type: none"> - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, well ventilated rooms must be used for storage of grains/ seeds. |
| Horticulture Crops | | | |
| Mango | Flowering | Leaf Hopper and Leaf Weevil | <ul style="list-style-type: none"> - Spray Cypermethrin or Fenvelerate (0.01%) alternatively with Carbaryl (0.1%) at an interval of one week. Follow the same schedule twice or thrice. |
| Potato | Maturity | Late blight | <p>If incidence of late blight may be observed with the rains, it is advised to spray Metalaxyl based fungicide, like Redomil MZ-72 WP @ 2 gm/lit alternately with Mencozeb @ 2gm/lit of water at 14 days interval for 2-3 times.</p> |
| Citrus | Nursery | Leaf Minor | <ul style="list-style-type: none"> - 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. - Collect good planting materials. |
| Bhindi | Sowing | | <ul style="list-style-type: none"> - Sowing of bhindi may be done at the spacing of 30cm x 45cm. |
| Cucurbits | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |



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“Integrated Agromet Advisory Services”

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|------------------------|----------------|--|---|
| French Bean | Sowing | | <ul style="list-style-type: none"> - Spacings: for dwarf variety like Anupama (30x45 cm from seed to seed & row to row) and for pole type Local variety (Tangkhul hawaii) 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 | Vegetative | | <ul style="list-style-type: none"> - A light irrigation should be given regularly for establishment. |
| Onion/ Garlic | Bulb formation | | <ul style="list-style-type: none"> - During the bulb formation stage, check that the neck portion is not covered with soil. - Light hoeing and irrigation is necessary to keep soil moist during this phase. |

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. |
| Sheep/ Goat | Above 3 months of age (as and when required) | Fascioliosis | - Administer Tolzan-F orally once @ 5ml / 15 kg body weight. |
| | | Mites/ mange | - Treat with Himax/ Telmosol/ Topicure spray. |
| 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) | Fascioliosis | - Control Fascioliosis by using Tolzan F @ 100 ml/ 300 kg body weight. |

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