



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |   |
|---|---|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Senapati (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 28.0 - 31.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 86 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p> |
|---|---|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop            | Stage                                    | Pest and disease infestation | Agro-meteorological advisories  |
|-----------------------------|--|------------------------------|---|
| <b>Field Crops</b>          |  |                              |   |
| <b>Rice</b>                 | Pre-kharif Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                             | Kharif Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>              | Vegetative                               |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>            | Vegetative                               |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/ Rice bean</b> | Sowing to vegetative                     |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>              |  |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>   |  |                              |   |
| <b>Colocasia</b>            | Corm formation                           |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>               | Planting                                 |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>             | Vegetative                               | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |



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| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.            |
|---|---|--------------------------------|---|
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.   |
| <b>Animal Sciences</b>                            |   |                                |   |
| Name of the animal                                | Growth stage  | Disease/ infestation           | Agro-meteorological advisories  |
| <b>Goat</b>                                       | Above 3 months of age                                       | Fascioliosis                   | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|   |   | Hemorrhagic Septicemia (H.S.)  | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>  | Above 3 months of age                                       | Ecto-parasite                  | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|   |   | Helminth parasite              | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b>                   | Above 3 months of age                                       | Hump sore                      | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|   |   | Ecto-parasite                  | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|   |   | Helminth parasite              | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|   |   | Fascioliosis                   | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|   |   | Hemorrhagic Septicemia (H.S.)  | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                                    | All susceptible age groups                                  | Coccidiosis                    | - Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.  |
|   |   |                                | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|   |   | Management                     | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

I. Meghachandra Singh  
Scientist i/c, IAAS



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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |   |
|---|---|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Tamenglong (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 31.0 - 33.0 °C and minimum temp. of 22.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 82 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p> |
|---|---|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop                | Stage                                       | Pest and disease infestation | Agro-meteorological advisories  |
|---------------------------------|---|------------------------------|---|
| <b>Field Crops</b>              |   |                              |   |
| <b>Rice</b>                     | Pre-kharif<br>Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                                 | Kharif<br>Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>                  | Vegetative                                  |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>                | Vegetative                                  |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/<br/>Rice bean</b> | Sowing to vegetative                        |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>                  |   |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>       |   |                              |   |
| <b>Cauliflower</b>              | Tranplanting                                |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>                | Corm formation                              |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>                   | Planting                                    |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>                 | Vegetative                                  | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |



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|   |   |                                |  |
|---|---|--------------------------------|--|
| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.   |
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
| <b>Grapes</b>                                     | Young Orchard (in polyhouses)                               | Downy mildew or powdery mildew | - In newly established grape vines, which has been infected with Downy mildew or Powdery mildew; infected parts may be removed and destroyed and spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval. |

**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|                                 |                            | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                  | All susceptible age groups | Coccidiosis                   | - Poultry must be provided Coximar (@ 1g/lit of drinking water) for 7 days.   |
|                                 |                            |                               | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|                                 |                            | Management                    | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

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**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Thoubal (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 29.0 - 31.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 92 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop            | Stage                                    | Pest and disease infestation | Agro-meteorological advisories  |
|-----------------------------|--|------------------------------|---|
| <b>Field Crops</b>          |  |                              |   |
| <b>Rice</b>                 | Pre-kharif Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                             | Kharif Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>              | Vegetative                               |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>            | Vegetative                               |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/ Rice bean</b> | Sowing to vegetative                     |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>              |  |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>   |  |                              |   |
| <b>Cauliflower</b>          | Tranplanting                             |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>            | Corm formation                           |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>               | Planting                                 |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>             | Vegetative                               | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |





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|   |   |                                |  |
|---|---|--------------------------------|--|
| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.   |
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
| <b>Grapes</b>                                     | Young Orchard (in polyhouses)                               | Downy mildew or powdery mildew | - In newly established grape vines, which has been infected with Downy mildew or Powdery mildew; infected parts may be removed and destroyed and spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval. |

**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|                                 |                            | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                  | All susceptible age groups | Coccidiosis                   | - Poultry must be provided Coximar (@ 1g/lit of drinking water) for 7 days.   |
|                                 |                            |                               | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|                                 |                            | Management                    | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

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**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Ukhrul (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 26.0 - 30.0 °C and minimum temp. of 17.0 – 20.0 °C. The maximum RH is likely to attain max of 99 % and minimum RH of 91 %. The average wind speed during next five days may reach upto max. value of 3 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop            | Stage                                    | Pest and disease infestation | Agro-meteorological advisories  |
|-----------------------------|--|------------------------------|---|
| <b>Field Crops</b>          |  |                              |   |
| <b>Rice</b>                 | Pre-kharif Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                             | Kharif Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>              | Vegetative                               |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>            | Vegetative                               |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/ Rice bean</b> | Sowing to vegetative                     |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>              |  |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>   |  |                              |   |
| <b>Colocasia</b>            | Corm formation                           |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>               | Planting                                 |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>             | Vegetative                               | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |



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



**“Integrated Agromet Advisory Services”**

| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.            |
|---|---|--------------------------------|---|
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.   |
| <b>Animal Sciences</b>                            |   |                                |   |
| Name of the animal                                | Growth stage  | Disease/ infestation           | Agro-meteorological advisories  |
| <b>Goat</b>                                       | Above 3 months of age                                       | Fascioliosis                   | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|   |   | Hemorrhagic Septicemia (H.S.)  | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>  | Above 3 months of age                                       | Ecto-parasite                  | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|   |   | Helminth parasite              | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b>                   | Above 3 months of age                                       | Hump sore                      | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|   |   | Ecto-parasite                  | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|   |   | Helminth parasite              | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|   |   | Fascioliosis                   | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|   |   | Hemorrhagic Septicemia (H.S.)  | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                                    | All susceptible age groups                                  | Coccidiosis                    | - Poultry must be provided <i>Coximar</i> (@ 1g/lit of drinking water) for 7 days.  |
|   |   |                                | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|   |   | Management                     | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

I. Meghachandra Singh  
Scientist i/c, IAAS





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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Bishnupur (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 30.0 - 32.0 °C and minimum temp. of 20.0 – 22.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 86 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop                | Stage                                       | Pest and disease infestation | Agro-meteorological advisories  |
|---------------------------------|---|------------------------------|---|
| <b>Field Crops</b>              |   |                              |   |
| <b>Rice</b>                     | Pre-kharif<br>Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                                 | Kharif<br>Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>                  | Vegetative                                  |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>                | Vegetative                                  |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/<br/>Rice bean</b> | Sowing to vegetative                        |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>                  |   |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>       |   |                              |   |
| <b>Cauliflower</b>              | Tranplanting                                |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>                | Corm formation                              |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>                   | Planting                                    |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>                 | Vegetative                                  | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |



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



**“Integrated Agromet Advisory Services”**

|   |   |                                |  |
|---|---|--------------------------------|--|
| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.   |
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
| <b>Grapes</b>                                     | Young Orchard (in polyhouses)                               | Downy mildew or powdery mildew | - In newly established grape vines, which has been infected with Downy mildew or Powdery mildew; infected parts may be removed and destroyed and spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval. |

**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|                                 |                            | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                  | All susceptible age groups | Coccidiosis                   | - Poultry must be provided Coximar (@ 1g/lit of drinking water) for 7 days.   |
|                                 |                            |                               | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|                                 |                            | Management                    | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

**I. Meghachandra Singh**  
Scientist i/c, IAAS



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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Chandel (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 31.0 - 33.0 °C and minimum temp. of 22.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 93 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop            | Stage                                    | Pest and disease infestation | Agro-meteorological advisories  |
|-----------------------------|--|------------------------------|---|
| <b>Field Crops</b>          |  |                              |   |
| <b>Rice</b>                 | Pre-kharif Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                             | Kharif Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>              | Vegetative                               |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>            | Vegetative                               |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/ Rice bean</b> | Sowing to vegetative                     |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>              |  |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>   |  |                              |   |
| <b>Cauliflower</b>          | Tranplanting                             |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>            | Corm formation                           |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>               | Planting                                 |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>             | Vegetative                               | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |



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



**“Integrated Agromet Advisory Services”**

|   |   |                                |  |
|---|---|--------------------------------|--|
| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.   |
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
| <b>Grapes</b>                                     | Young Orchard (in polyhouses)                               | Downy mildew or powdery mildew | - In newly established grape vines, which has been infected with Downy mildew or Powdery mildew; infected parts may be removed and destroyed and spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval. |

**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|                                 |                            | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                  | All susceptible age groups | Coccidiosis                   | - Poultry must be provided Coximar (@ 1g/lit of drinking water) for 7 days.   |
|                                 |                            |                               | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|                                 |                            | Management                    | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

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



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Churachandpur (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 31.0 - 33.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 84 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop                | Stage                                       | Pest and disease infestation | Agro-meteorological advisories  |
|---------------------------------|---|------------------------------|---|
| <b>Field Crops</b>              |   |                              |   |
| <b>Rice</b>                     | Pre-kharif<br>Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                                 | Kharif<br>Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>                  | Vegetative                                  |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>                | Vegetative                                  |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/<br/>Rice bean</b> | Sowing to vegetative                        |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>                  |   |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>       |   |                              |   |
| <b>Cauliflower</b>              | Tranplanting                                |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>                | Corm formation                              |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>                   | Planting                                    |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>                 | Vegetative                                  | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |





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



**“Integrated Agromet Advisory Services”**

|   |   |                                |  |
|---|---|--------------------------------|--|
| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.   |
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
| <b>Grapes</b>                                     | Young Orchard (in polyhouses)                               | Downy mildew or powdery mildew | - In newly established grape vines, which has been infected with Downy mildew or Powdery mildew; infected parts may be removed and destroyed and spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval. |

**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|                                 |                            | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                  | All susceptible age groups | Coccidiosis                   | - Poultry must be provided Coximar (@ 1g/lit of drinking water) for 7 days.   |
|                                 |                            |                               | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|                                 |                            | Management                    | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

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Manipur Centre, Lamphelpat, Imphal - 795 004**



**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Imphal - East (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 31.0 - 33.0 °C and minimum temp. of 22.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 87 %. The average wind speed during next five days may reach upto max. value of 4 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop                | Stage                                       | Pest and disease infestation | Agro-meteorological advisories  |
|---------------------------------|---|------------------------------|---|
| <b>Field Crops</b>              |   |                              |   |
| <b>Rice</b>                     | Pre-kharif<br>Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                                 | Kharif<br>Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>                  | Vegetative                                  |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>                | Vegetative                                  |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/<br/>Rice bean</b> | Sowing to vegetative                        |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>                  |   |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>       |   |                              |   |
| <b>Cauliflower</b>              | Tranplanting                                |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>                | Corm formation                              |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>                   | Planting                                    |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
| <b>Turmeric</b>                 | Vegetative                                  | Leaf Spot and leaf blotch    | - Spray DM-45 @ 2.0 g/ lit of water as prophylactic measure against Leaf spot and Leaf blotch.  |



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

|   |   |                                |  |
|---|---|--------------------------------|--|
| <b>Cucurbits</b>                                  | Fruiting to harvesting also vegetative stage (in late sown) | Downy mildew or powdery mildew | - Against Downy mildew or powdery mildew in cucurbits at vegetative stage (late sown crops), spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval.   |
| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
| <b>Grapes</b>                                     | Young Orchard (in polyhouses)                               | Downy mildew or powdery mildew | - In newly established grape vines, which has been infected with Downy mildew or Powdery mildew; infected parts may be removed and destroyed and spray Bayleton @ 7g/10 lit of water alternately with copper fungicide or Blitox 50 @ 2 g/lit of water at 7 days interval. |

**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
|                                 |                            | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Poultry</b>                  | All susceptible age groups | Coccidiosis                   | - Poultry must be provided Coximar (@ 1g/lit of drinking water) for 7 days.   |
|                                 |                            |                               | - Deworm with Piperazine Hexahydrate-<br>@ 30 ml/100birds in 3-5 lit of water: upto 6weeks old and<br>@ 60ml/100 birds in 5-10 lit of water: above 6weeks of age.<br>- Administer 50ml calcicare for 100 birds in drinking water. |
|                                 |                            | Management                    | - Mix lime powder @ 2 kg per 100 sq. ft. area in litter material.   |

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**“Integrated Agromet Advisory Services”**

**MANIPUR BULLETIN**

**19<sup>th</sup> July, 2013**

**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 20<sup>th</sup> to 24<sup>th</sup> July, 2013 as given below:

|   |  |
|---|--|
| <p><u>Significant past weather for the preceding bi-weekly of Imphal - West (16<sup>th</sup> to 18<sup>th</sup> July, 2013)</u></p> <p>During the past three days the sky was mainly cloudy to cloudy. <b>8.0 mm</b> rainfall was recorded during past three days. Maximum temperature range observed was 31.1 – 33.9 °C, range of minimum temperature observed was 22.2 – 23.4 °C, mean relative humidity observed in morning and afternoon were 88.0% and 69.67 % respectively. The average wind speed range was 2.7 – 6.5 km/hr.</p> | <p><u>Weather forecast for next five days of Imphal - West (20<sup>th</sup> to 24<sup>th</sup> July, 2013)</u></p> <p>It is likely to have light to moderate rains during next five days. The sky is likely to be mainly cloudy with maximum temp. of 30.0 - 32.0 °C and minimum temp. of 21.0 – 23.0 °C. The maximum RH is likely to attain max of 100 % and minimum RH of 81 %. The average wind speed during next five days may reach upto max. value of 2 km/hr.</p> |
|---|--|

**Weather Forecast for next 3 days (upto 0830 hours IST of 22<sup>nd</sup> July, 2013):** Rain/thundershowers would occur at many places over northeast.

**Weather Outlook for subsequent 4 days from 22<sup>nd</sup> to 26<sup>th</sup> July, 2013:** Rainfall would continue at many places over northeastern states

| Name of the crop                | Stage                                       | Pest and disease infestation | Agro-meteorological advisories  |
|---------------------------------|---|------------------------------|---|
| <b>Field Crops</b>              |   |                              |   |
| <b>Rice</b>                     | Pre-kharif<br>Harvest to post harvest       |                              | - Stacking of the harvested panicles for 5-7 days by turning the heap of panicles may be done. It must be well threshed, cleaned and sundried before storage.   |
|                                 | Kharif<br>Land preparation to transplanting |                              | - Uproot 25 days old seedlings. Transplant 2-3 seedlings per hill at a spacing of 25cm x 10cm. Maintain a thin film of water after transplanting.<br>- Transplanted seedlings will be established in 7 days, then maintain water level of 5-8 cm.   |
| <b>Soybean</b>                  | Vegetative                                  |                              | - Inter-culture operations may be carried out.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water)  |
| <b>Groundnut</b>                | Vegetative                                  |                              | - Second hand weeding and earthing up may be done at 35 days. Avoid earthing up after 40 days of sowing in groundnut.<br>- For control of red hairy caterpillars at young larvae stage, dust 5% Malathion @ 20 kg/ ha to control it or spray Dichlorovos 7.6 EC 0.05% (0.6ml/ lit of water) |
| <b>Blackgram/<br/>Rice bean</b> | Sowing to vegetative                        |                              | - Sowing may be continued in new areas (upland) where there is no problem of water logging.<br>- Inter-culture operations may be carried out.   |
| <b>Storage</b>                  |   |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth.   |
| <b>Horticulture Crops</b>       |   |                              |   |
| <b>Cauliflower</b>              | Tranplanting                                |                              | - Add 10kg urea + 50 kg DAP + 40 kg MOP with 10 cart loads of FYM per sangam as basal dose.<br>- Transplant healthy seedlings at a spacing of 45cm x 45cm.  |
| <b>Colocasia</b>                | Corm formation                              |                              | - Weeding and earthing up of the soil may be done at the base of the plant.   |
| <b>Banana</b>                   | Planting                                    |                              | - Plant banana at a spacing of 2.7m x 3m for tall varieties and 1.8m x 2.4m or 1.8m x 2.4m for dwarf varieties.<br>Pit size: 2x2x2 feet. Fill up the pit with soil & FYM in the ratio 3:2. Plant one sucker (with broad base & narrow leaves) per pit.                                      |
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| <b>Orange/Lime/Lemon/Papaya/Litchi/ Tree bean</b> | Planting  | Lichen incidence               | - If lichen is observed, then scrap out the affected area and paint with Bordeaux paste or Benlate.  |
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**Animal Sciences**

| Name of the animal              | Growth stage               | Disease/ infestation          | Agro-meteorological advisories  |
|---------------------------------|----------------------------|-------------------------------|---|
| <b>Goat</b>                     | Above 3 months of age      | Fascioliosis                  | - Give Tolzan-F 15ml orally/ 300kg b. wt. It must be associated with vitamins like Livozyme @ 50ml twice daily.   |
|                                 |                            | Hemorrhagic Septicemia (H.S.) | - Vaccinate against H.S. @ 1ml subcutaneously and de-worm before vaccination.   |
| <b>Pig</b>                      | Above 3 months of age      | Ecto-parasite                 | - Apply Butox @ 3ml/lit of water while brushing the animals.  |
|                                 |                            | Helminth parasite             | - Give Minthal bolus 200mg, 1 bolus per 40 kg b. wt. once. Accompany with a vitamin like Livozyme @ 50ml twice daily.   |
| <b>Cattle / Buffalo/ Mithun</b> | Above 3 months of age      | Hump sore                     | - Wash the sore with Hydrogen peroxide or Potassium permanganate and apply Himax ointment twice daily.<br>- In severe case, inject Dicrysticin LA once daily intramuscularly for 5 days.  |
|                                 |                            | Ecto-parasite                 | - Apply Butox @ 3 ml/lit of water while brushing the animals.   |
|                                 |                            | Helminth parasite             | - Give Nilzan-90ml suspension @90ml for 300 kg b. wt.   |
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