

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



### "Integrated Agromet Advisory Services"

## MANIPUR BULLETIN 24<sup>th</sup> June, 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Churachandpur (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $30.0-32.0~^{\circ}\text{C}$  & minimum temp.  $21.0-23.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 99 % (maximum RH) & 70 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

#### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

#### Weather Outlook for subsequent 4 days from 27th June to 1st July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>   |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | <ul> <li>- Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul> |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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| Horticulture Ci | rops                       |                                       |  |
|-----------------|----------------------------|---------------------------------------|--|
| Cauliflower     | Land                       |                                       | - Prepare raised nursery bed with temporary rain shed and drain out excess   |
| (Early)         | preparation to             |                                       | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil  |
|                 | nursery sowing             |                                       | with Captan 50 W.P. Till germination the cover bed with paddy straw.   |
| Citrus          | , ,                        |                                       | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of  |
|                 |                            |                                       | insect pest and disease.   |
| Cucurbits       | Fruiting to                |                                       | - Avoid water logging near crop.   |
|                 | harvesting                 |                                       | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpkin,   |
|                 | nai vosting                |                                       | bottle gourd fruits for crops trilling on the ground to avoid contact with soil.   |
| Vegetables      |                            |                                       | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against   |
| Vegetables      |                            |                                       | powdery Mildew when there seems the probability to have 4-5 hrs of no  |
|                 |                            |                                       | rain.  |
|                 |                            |                                       | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of  |
|                 |                            |                                       | water to protect from any fungal disease when there seems the probabitilty   |
|                 |                            |                                       | to have 4-5 hrs of no rain.  |
| Animal Scien    | CPS                        |                                       | to have 4-5 ms of no fam.  |
| Name of the     | Growth stage               | Disease/                              | Agro-meteorological advisories   |
| animal          |                            | infestation                           |  |
| Poultry         | All susceptible age        | Endoparasites                         | - De-worm using Piperazine citrate.  |
|                 | groups (as and when        |                                       | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.  |
|                 | required)                  | Coccidiosis                           | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of   |
|                 |                            |                                       | water.   |
|                 |                            | coli bacillosis ?                     | Add sanitizer in drinking water and avoid muddy water for drinking purpose.  |
| Sheep/ Goat     | Above 3 months of          | Endoparasite/                         | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied   |
|                 | age (as and when required) | Ectoparasite                          | with Livozyme @ 50ml daily.  |
|                 |                            | B.Q.                                  | - Vaccinate against B.Q. @ 1ml sub- cutaneously.   |
| Pig             | Above 3 months of          | Ticks                                 | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while  |
| 1 ig            | age (as and when required) | TICKS                                 | brushing the animal.   |
|                 |                            | Protozoan Parasites                   | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.   |
|                 |                            |                                       |  |
|                 |                            | Endo/ Ecto parasite or skin infection | - Inject Neomac @ 1 ml/ 10 kg body weight.   |
| Cattle /        | Above 3 months of          | Endoparasite/                         | - Inject Parid @ 1 ml/ 50 kg body weight.  |
| Buffalo/        | age (as and when           | Ectoparasite                          | inject i and & i ini/ 50 kg body weight.   |
| Mithun          | required)                  | Tick                                  | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight  |
|                 | 1                          | TICK                                  | interval.  |
|                 |                            | Deworming                             | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.  |
|                 |                            |                                       |  |
|                 |                            | B.Q./ H.S.                            | Vaccinate against B.Q./ H.S. sub- cutaneously.   |
| Fishery:        |                            |                                       |  |
| - Encircle pon  | d with net to avoid        | escape of fish durin                  | g rainy days.  |
| Carp culture    | nurseries                  | Pond and water                        | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime  |
| -               |                            |                                       | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +   |
|                 |                            |                                       | 75kg SSP in nursery pond water 15 days before spawn stocking.  |
|                 |                            | Feed                                  | Well balanced feeds should be provided 2-3 times a day @ 5-10% body  |
|                 |                            |                                       | weight/day.  |
|                 |                            | Fish                                  | 20-30 million spawn can be stocked in one ha pond.   |
| •               | Grow -out                  | Pond and water                        | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha  |
|                 |                            |                                       | at 30 days interval.   |
|                 | 1                          | Fish                                  | 8000-10,000 fingerlings can be stocked per ha.   |
|                 |                            | LISII                                 |  |
|                 |                            | LISII                                 |  |
|                 |                            | FISH                                  | Sampling of fish for growth, diseases (if any) should be done by regular   |
|                 |                            |                                       | Sampling of fish for growth, diseases (if any) should be done by regular netting.  |
|                 |                            | Feed                                  | Sampling of fish for growth, diseases (if any) should be done by regular netting.  Well balanced feed should be provided @ 3-5% body weight per day in 2-3 |
| Paddy cum       | Field                      |                                       | Sampling of fish for growth, diseases (if any) should be done by regular netting.  |



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#### 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Imphal-East (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $31.0-34.0~^{\circ}\text{C}$  & minimum temp.  $22.0-24.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 100~% (maximum RH) & 76 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

#### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

#### Weather Outlook for subsequent 4 days from 27th June to 1st July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water log      | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>Soak seeds for 24hrs then incubate before sowing.</li> <li>Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>                                     |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | - Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.  - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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| Cauliflower                             | Land  |                                       | - Prepare raised nursery bed with temporary rain shed and drain out excess                            |
|---|---|---------------------------------------|---|
| (Early)                                 | preparation to  |                                       | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soi                  |
| (====================================== | nursery sowing  |                                       | with Captan 50 W.P. Till germination the cover bed with paddy straw.                                  |
| Citrus                                  | , and J. |                                       | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of                         |
| 0101 010                                |   |                                       | insect pest and disease.  |
| Cucurbits                               | Fruiting to   |                                       | - Avoid water logging near crop.  |
|   | harvesting  |                                       | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpkir                           |
|   |   |                                       | bottle gourd fruits for crops trilling on the ground to avoid contact with soil.                      |
| Vegetables                              |   |                                       | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against                              |
|   |   |                                       | powdery Mildew when there seems the probabitilty to have 4-5 hrs of n                                 |
|   |   |                                       | rain.   |
|   |   |                                       | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of                               |
|   |   |                                       | water to protect from any fungal disease when there seems the probabitilt to have 4-5 hrs of no rain. |
| Animal Scien                            | 1005  |                                       | to have 4-5 ms of no fam.   |
| Name of the                             | Growth stage  | Disease/                              | Agro-meteorological advisories  |
| animal                                  |   | infestation                           |   |
| Poultry                                 | All susceptible age   | Endoparasites                         | - De-worm using Piperazine citrate.   |
|   | groups (as and when   |                                       | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.   |
|   | required)   | Coccidiosis                           | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of                          |
|   |   |                                       | water.  |
|   |   | coli bacillosis ?                     | Add sanitizer in drinking water and avoid muddy water for drinking purpose.                           |
| Sheep/ Goat                             | Above 3 months of   | Endoparasite/                         | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied                                |
|   | age (as and when  | Ectoparasite                          | with Livozyme @ 50ml daily.   |
|   | required)   | B.Q.                                  | - Vaccinate against B.Q. @ 1ml sub- cutaneously.  |
| Pig                                     | Above 3 months of   | Ticks                                 | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while                         |
|   | age (as and when required)  |                                       | brushing the animal.  |
|   |   | Protozoan Parasites                   | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.  |
|   |   | Endo/ Ecto parasite or skin infection | - Inject Neomac @ 1 ml/ 10 kg body weight.  |
| Cattle /                                | Above 3 months of   | Endoparasite/                         | - Inject Parid @ 1 ml/ 50 kg body weight.   |
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| Mithun                                  | required)   | Tick                                  | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight                         |
|   |   |                                       | interval.   |
|   |   | Deworming                             | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.   |
|   |   | B.Q./ H.S.                            | Vaccinate against B.Q./ H.S. sub- cutaneously.  |
| Einl. a.m.                              |   | B.Q./ 11.5.                           | vaccinate against B. Q., Th.S. Sub-cutaneously.   |
| Fishery:                                |   | 0.07.1.1.1                            |   |
|   | nd with net to avoid  | •                                     | Ţ   |
| Carp culture                            | nurseries   | Pond and water                        | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime                               |
|   |   |                                       | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +                                  |
|   |   | Г 1                                   | 75kg SSP in nursery pond water 15 days before spawn stocking.   |
|   |   | Feed                                  | Well balanced feeds should be provided 2-3 times a day @ 5-10% body                                   |
|   |   | Fish                                  | weight/day.  20-30 million spawn can be stocked in one ha pond.                                       |
|   |   | Pond and water                        | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha                                 |
|   | Glow -out   | rond and water                        | at 30 days interval.  |
|   |   | Fish                                  | 8000-10,000 fingerlings can be stocked per ha.  |
|   |   |                                       | Sampling of fish for growth, diseases (if any) should be done by regular                              |
|   |   | Feed                                  | netting.  Well balanced feed should be provided @ 3-5% body weight per day in 2-3                     |
|   |   | recu                                  | well balanced feed should be provided & 5-3% body weight per day in 2-3 splits.                       |
| Paddy cum                               | Field   |                                       | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30                         |
| fish culture                            | Field   |                                       | 40% of the field may be converted into trench/pond for fish culture.                                  |



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Weather forecast for next five days of Imphal-West (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

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Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

### Weather warnings upto 26<sup>th</sup> June, 2014

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### Weather Outlook for subsequent 4 days from 27<sup>th</sup> June to 1<sup>st</sup> July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              |  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
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|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>   |
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| Soybean /<br>Groundnut | Vegetative                      |                              | <ul> <li>- Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul> |
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| Cucurbits                               | Fruiting to   |                                       | - Avoid water logging near crop.  |
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|   |   |                                       | bottle gourd fruits for crops trilling on the ground to avoid contact with soil.                      |
| Vegetables                              |   |                                       | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against                              |
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| animal                                  |   | infestation                           |   |
| Poultry                                 | All susceptible age   | Endoparasites                         | - De-worm using Piperazine citrate.   |
|   | groups (as and when   |                                       | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.   |
|   | required)   | Coccidiosis                           | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of                          |
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| Pig                                     | Above 3 months of   | Ticks                                 | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while                         |
|   | age (as and when required)  |                                       | brushing the animal.  |
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| Cattle /                                | Above 3 months of   | Endoparasite/                         | - Inject Parid @ 1 ml/ 50 kg body weight.   |
| Buffalo/                                | age (as and when  | Ectoparasite                          | inject i and & 1 mil 50 kg body weight.   |
| Mithun                                  | required)   | Tick                                  | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight                         |
|   |   |                                       | interval.   |
|   |   | Deworming                             | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.   |
|   |   | B.Q./ H.S.                            | Vaccinate against B.Q./ H.S. sub- cutaneously.  |
| Einl. a.m.                              |   | B.Q./ 11.5.                           | vaccinate against B. Q., Th.S. Sub-cutaneously.   |
| Fishery:                                |   | 0.07.1.1.1                            |   |
|   | nd with net to avoid  | •                                     | Ţ   |
| Carp culture                            | nurseries   | Pond and water                        | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime                               |
|   |   |                                       | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +                                  |
|   |   | Г 1                                   | 75kg SSP in nursery pond water 15 days before spawn stocking.   |
|   |   | Feed                                  | Well balanced feeds should be provided 2-3 times a day @ 5-10% body                                   |
|   |   | Fish                                  | weight/day.  20-30 million spawn can be stocked in one ha pond.                                       |
|   |   | Pond and water                        | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha                                 |
|   | Glow -out   | rond and water                        | at 30 days interval.  |
|   |   | Fish                                  | 8000-10,000 fingerlings can be stocked per ha.  |
|   |   |                                       | Sampling of fish for growth, diseases (if any) should be done by regular                              |
|   |   | Feed                                  | netting.  Well balanced feed should be provided @ 3-5% body weight per day in 2-3                     |
|   |   | recu                                  | well balanced feed should be provided & 5-3% body weight per day in 2-3 splits.                       |
| Paddy cum                               | Field   |                                       | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30                         |
| fish culture                            | Field   |                                       | 40% of the field may be converted into trench/pond for fish culture.                                  |



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 24<sup>th</sup> June, 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Senapati (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $29.0-31.0~^{\circ}\text{C}$  & minimum temp.  $20.0-22.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 99 % (maximum RH) & 76 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

### Weather Outlook for subsequent 4 days from 27<sup>th</sup> June to 1<sup>st</sup> July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>                             |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | - Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.  - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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



| Horticulture Cr | rops   |                                       |  |
|-----------------|--|---------------------------------------|--|
| Cauliflower     | Land   |                                       | - Prepare raised nursery bed with temporary rain shed and drain out exces  |
| (Early)         | preparation to                               |                                       | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil  |
| (Larry)         | nursery sowing                               |                                       | with Captan 50 W.P. Till germination the cover bed with paddy straw.   |
| C:4             | nursery sowing                               |                                       | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack o   |
| Citrus          |  |                                       |  |
| ~ 11            |  |                                       | insect pest and disease.   |
| Cucurbits       | Fruiting to                                  |                                       | - Avoid water logging near crop.   |
|                 | harvesting                                   |                                       | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpkir bottle gourd fruits for crops trilling on the ground to avoid contact with soil. |
| Vegetables      |  |                                       | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against   |
|                 |  |                                       | powdery Mildew when there seems the probabitilty to have 4-5 hrs of n  |
|                 |  |                                       | rain.  |
|                 |  |                                       | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of  |
|                 |  |                                       | water to protect from any fungal disease when there seems the probabitile  |
|                 |  |                                       | to have 4-5 hrs of no rain.  |
| Animal Sciend   | ces  |                                       |  |
| Name of the     | Growth stage                                 | Disease/                              | Agro-meteorological advisories   |
| animal          |  | infestation                           |  |
| Poultry         | All susceptible age                          | Endoparasites                         | - De-worm using Piperazine citrate.  |
|                 | groups (as and when                          |                                       | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.  |
|                 | required)                                    | Coccidiosis                           | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of   |
|                 |  |                                       | water.   |
|                 |  | coli bacillosis ?                     | Add sanitizer in drinking water and avoid muddy water for drinking purpose.  |
| Sheep/ Goat     | Above 3 months of                            | Endoparasite/                         | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied   |
| Sheep, Gout     | age (as and when                             | Ectoparasite                          | with Livozyme @ 50ml daily.  |
|                 | required)                                    | B.Q.                                  | - Vaccinate against B.Q. @ 1ml sub- cutaneously.   |
| D!              |  |                                       |  |
| Pig             | Above 3 months of age (as and when required) | Ticks                                 | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while  |
|                 |  | D                                     | brushing the animal.   |
|                 |  | Protozoan Parasites                   | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.   |
|                 |  | Endo/ Ecto parasite or skin infection | - Inject Neomac @ 1 ml/ 10 kg body weight.   |
| Cattle /        | Above 3 months of                            | Endoparasite/                         | - Inject Parid @ 1 ml/ 50 kg body weight.  |
| Buffalo/        | age (as and when                             | Ectoparasite                          |  |
| Mithun          | required)                                    | Tick                                  | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnigl interval.   |
|                 |  | Deworming                             | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.  |
|                 |  | B.Q./ H.S.                            | Vaccinate against B.Q./ H.S. sub- cutaneously.   |
| Figh orms       |  | D.Q./ 11.5.                           | vaccinate against B.Q., 11.5. sub-cutaincousty.  |
| Fishery:        | 1 11 11                                      | C C" 1 1 '                            |  |
| •               |  | escape of fish durin                  |  |
| Carp culture    | nurseries                                    | Pond and water                        | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime  |
|                 |  |                                       | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +   |
|                 | _  |                                       | 75kg SSP in nursery pond water 15 days before spawn stocking.  |
|                 |  | Feed                                  | Well balanced feeds should be provided 2-3 times a day @ 5-10% body  |
|                 |  |                                       | weight/day.  |
|                 | Ī  | Fish                                  | 20-30 million spawn can be stocked in one ha pond.   |
|                 | Grow -out                                    | Pond and water                        | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha  |
|                 | SIOW Out                                     |                                       | at 30 days interval.   |
|                 |  |                                       |  |
|                 |  | Fish                                  | 8000-10,000 lingerlings can be stocked per na.   |
|                 |  | Fish                                  | 8000-10,000 fingerlings can be stocked per ha.  Sampling of fish for growth, diseases (if any) should be done by regular netting.                            |
|                 |  |                                       | Sampling of fish for growth, diseases (if any) should be done by regular netting.  |
|                 |  | Fish                                  | Sampling of fish for growth, diseases (if any) should be done by regular netting.  Well balanced feed should be provided @ 3-5% body weight per day in 2-3   |
| Paddy cum       | Field  |                                       | Sampling of fish for growth, diseases (if any) should be done by regular netting.  |



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



### "Integrated Agromet Advisory Services"

## MANIPUR BULLETIN 24<sup>th</sup> June, 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Tamenglong (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $31.0-34.0~^{\circ}\text{C}$  & minimum temp.  $22.0-24.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 100~% (maximum RH) & 70 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

#### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

#### Weather Outlook for subsequent 4 days from 27th June to 1st July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>   |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | <ul> <li>- Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul> |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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



| Cauliflower                             | Land                       |                                 | - Prepare raised nursery bed with temporary rain shed and drain out exces                             |
|---|----------------------------|---------------------------------|---|
| (Early)                                 | preparation to             |                                 | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soi                  |
| (====================================== | nursery sowing             |                                 | with Captan 50 W.P. Till germination the cover bed with paddy straw.                                  |
| Citrus                                  | , and J. and B.            |                                 | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of                         |
| 0101 010                                |                            |                                 | insect pest and disease.  |
| Cucurbits                               | Fruiting to                |                                 | - Avoid water logging near crop.  |
|   | harvesting                 |                                 | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpkir                           |
|   |                            |                                 | bottle gourd fruits for crops trilling on the ground to avoid contact with soil.                      |
| Vegetables                              |                            |                                 | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against                              |
|   |                            |                                 | powdery Mildew when there seems the probabitilty to have 4-5 hrs of n                                 |
|   |                            |                                 | rain.   |
|   |                            |                                 | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of                               |
|   |                            |                                 | water to protect from any fungal disease when there seems the probabitilt to have 4-5 hrs of no rain. |
| Animal Scien                            | 0.05                       |                                 | to have 4-5 his of no fam.  |
| Name of the                             | Growth stage               | Disease/                        | Agro-meteorological advisories  |
| animal                                  | Growth stage               | infestation                     | rigio meteorological advisories   |
| Poultry                                 | All susceptible age        | Endoparasites                   | - De-worm using Piperazine citrate.   |
|   | groups (as and when        |                                 | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.   |
|   | required)                  | Coccidiosis                     | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of                          |
|   |                            |                                 | water.  |
|   |                            | coli bacillosis ?               | Add sanitizer in drinking water and avoid muddy water for drinking purpose.                           |
| Sheep/ Goat                             | Above 3 months of          | Endoparasite/                   | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied                                |
|   | age (as and when           | Ectoparasite                    | with Livozyme @ 50ml daily.   |
|   | required)                  | B.Q.                            | - Vaccinate against B.Q. @ 1ml sub- cutaneously.  |
| Pig                                     | Above 3 months of          | Ticks                           | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while                         |
|   | age (as and when required) |                                 | brushing the animal.  |
|   |                            | Protozoan Parasites             | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.  |
|   |                            | Endo/ Ecto parasite             | - Inject Neomac @ 1 ml/ 10 kg body weight.  |
| Cattle /                                | Above 3 months of          | or skin infection Endoparasite/ | - Inject Parid @ 1 ml/ 50 kg body weight.   |
| Buffalo/                                | age (as and when           | Ectoparasite                    | - Inject I and & I mil 50 kg body weight.   |
| Mithun                                  | required)                  | Tick                            | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight                         |
|   |                            |                                 | interval.   |
|   |                            | Deworming                       | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.   |
|   |                            | B.Q./ H.S.                      | Vaccinate against B.Q./ H.S. sub- cutaneously.  |
| Eigh am.                                |                            | B.Q./ 11.5.                     | vaccinate against B.Q., 11.5. sub-catalloously.   |
| Fishery:                                |                            | 0.07.1.1.1                      |   |
|   | nd with net to avoid       | •                               | <del>-</del>  |
| Carp culture                            | nurseries                  | Pond and water                  | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime                               |
|   |                            |                                 | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +                                  |
|   |                            | E. d                            | 75kg SSP in nursery pond water 15 days before spawn stocking.   |
|   |                            | Feed                            | Well balanced feeds should be provided 2-3 times a day @ 5-10% body                                   |
|   |                            | Fish                            | weight/day.  20-30 million spawn can be stocked in one ha pond.                                       |
|   |                            | Pond and water                  | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha                                 |
|   | SIOW -Out                  | 1 one and water                 | at 30 days interval.  |
|   |                            | Fish                            | 8000-10,000 fingerlings can be stocked per ha.  |
|   |                            | <del></del>                     | Sampling of fish for growth, diseases (if any) should be done by regular                              |
|   |                            |                                 | netting.  |
|   |                            | Feed                            | Well balanced feed should be provided @ 3-5% body weight per day in 2-3                               |
|   |                            |                                 | splits.   |
| Paddy cum                               | Field                      |                                 | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30                         |
| fish culture                            | Field                      |                                 | 40% of the field may be converted into trench/pond for fish culture.                                  |



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 24<sup>th</sup> June, 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Thoubal (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $30.0-33.0~^{\circ}\text{C}$  & minimum temp.  $22.0-23.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 99 % (maximum RH) & 78 % (minimum RH). The average wind speed may be 2-6 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

### Weather Outlook for subsequent 4 days from 27<sup>th</sup> June to 1<sup>st</sup> July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>                             |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | - Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.  - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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



| Cauliflower              | Land                       |                                       | - Prepare raised nursery bed with temporary rain shed and drain out exces  |
|--------------------------|----------------------------|---------------------------------------|--|
| (Early)                  | preparation to             |                                       | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soi   |
| (Larry)                  | nursery sowing             |                                       | with Captan 50 W.P. Till germination the cover bed with paddy straw.   |
| Citrus                   | nursery sowing             |                                       | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of  |
| Citrus                   |                            |                                       | insect pest and disease.   |
| Cucurbits                | Emiting to                 |                                       | - Avoid water logging near crop.   |
| Cucurbus                 | Fruiting to                |                                       |  |
|                          | harvesting                 |                                       | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpking bottle gourd fruits for crops trilling on the ground to avoid contact with soil |
| Vegetables               |                            |                                       | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against   |
|                          |                            |                                       | powdery Mildew when there seems the probabitilty to have 4-5 hrs of n rain.  |
|                          |                            |                                       |  |
|                          |                            |                                       | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre c water to protect from any fungal disease when there seems the probabitilt             |
| A                        |                            |                                       | to have 4-5 hrs of no rain.  |
| Animal Scien Name of the |                            | Disease/                              | Agro-meteorological advisories   |
| animal                   | Growth stage               | infestation                           | Agro-meteorological advisories   |
| Poultry                  | All susceptible age        | Endoparasites                         | - De-worm using Piperazine citrate.  |
| Tourty                   | groups (as and when        | Endoparasites                         | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.  |
|                          | required)                  | Coccidiosis                           | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of   |
|                          |                            | Coccidiosis                           | water.   |
|                          |                            | coli bacillosis ?                     | Add sanitizer in drinking water and avoid muddy water for drinking purpose.  |
| Sheep/ Goat              | Above 3 months of          | Endoparasite/                         | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied   |
| энсер/ обас              | age (as and when           | Ectoparasite                          | with Livozyme @ 50ml daily.  |
|                          | required)                  | B.Q.                                  | - Vaccinate against B.Q. @ 1ml sub- cutaneously.   |
| D! ~                     | Above 3 months of          | Ticks                                 | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while  |
| Pig                      | age (as and when required) | TICKS                                 | brushing the animal.   |
|                          |                            | Protozoan Parasites                   |  |
|                          |                            |                                       | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.   |
|                          |                            | Endo/ Ecto parasite or skin infection | - Inject Neomac @ 1 ml/ 10 kg body weight.   |
| Cattle /                 | Above 3 months of          | Endoparasite/                         | - Inject Parid @ 1 ml/ 50 kg body weight.  |
| Buffalo/                 | age (as and when           | Ectoparasite                          |  |
| Mithun                   | required)                  | Tick                                  | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight  |
|                          |                            |                                       | interval.  |
|                          |                            | Deworming                             | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.  |
|                          |                            | B.Q./ H.S.                            | Vaccinate against B.Q./ H.S. sub- cutaneously.   |
| 77: 1                    |                            | D.Q./ 11.3.                           | vaccinate against B.Q./ 11.5. sub- cutalicousty.   |
| Fishery:                 |                            |                                       |  |
| - Encircle pon           | d with net to avoid        | escape of fish durin                  | <u> </u>   |
| Carp culture             | nurseries                  | Pond and water                        | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime  |
|                          |                            |                                       | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +   |
|                          |                            |                                       | 75kg SSP in nursery pond water 15 days before spawn stocking.  |
|                          |                            | Feed                                  | Well balanced feeds should be provided 2-3 times a day @ 5-10% body  |
|                          |                            |                                       | weight/day.  |
|                          |                            | Fish                                  | 20-30 million spawn can be stocked in one ha pond.   |
|                          | Grow -out                  | Pond and water                        | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha at 30 days interval.   |
|                          |                            | Fish                                  | 8000-10,000 fingerlings can be stocked per ha.   |
|                          |                            |                                       | Sampling of fish for growth, diseases (if any) should be done by regular netting.  |
|                          |                            | Feed                                  | Well balanced feed should be provided @ 3-5% body weight per day in 2-3  |
| Dodder                   | E: 14                      |                                       | splits.  |
| Paddy cum fish culture   | Field                      |                                       | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30 40% of the field may be converted into trench/pond for fish culture.           |



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 24<sup>th</sup> June, 2014

#### **Ukhrul**

IAAS, ICAR-RC Manipur Centre in association with India Meteorological Department, Regional Meteorological Centre, Guwahati and Northern Hemisphere Analysis Centre, New Delhi, Ministry of Earth Science, Govt. of India reports the weather forecasts for the next five days, i.e., from 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Ukhrul (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $28.0-31.0~^{\circ}\text{C}$  & minimum temp.  $18.0-21.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 98 % (maximum RH) & 80 % (minimum RH). The average wind speed may be 3-5 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

### Weather Outlook for subsequent 4 days from 27<sup>th</sup> June to 1<sup>st</sup> July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>                             |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | - Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.  - Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing. |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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



| Horticulture C           | rops                |                                       |   |
|--------------------------|---------------------|---------------------------------------|---|
| Cauliflower              | Land                |                                       | - Prepare raised nursery bed with temporary rain shed and drain out excess            |
| (Early)                  | preparation to      |                                       | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soil |
| (Eurly)                  | nursery sowing      |                                       | with Captan 50 W.P. Till germination the cover bed with paddy straw.                  |
| C'4                      | nursery sowing      |                                       | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of         |
| Citrus                   |                     |                                       |   |
|                          |                     |                                       | insect pest and disease.  |
| Cucurbits                | Fruiting to         |                                       | - Avoid water logging near crop.  |
|                          | harvesting          |                                       | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpkin           |
|                          |                     |                                       | bottle gourd fruits for crops trilling on the ground to avoid contact with soil.      |
| Vegetables               |                     |                                       | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure agains               |
|                          |                     |                                       | powdery Mildew when there seems the probabitilty to have 4-5 hrs of no                |
|                          |                     |                                       | rain.   |
|                          |                     |                                       | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of               |
|                          |                     |                                       | water to protect from any fungal disease when there seems the probability             |
|                          |                     |                                       |   |
| 4 1 C                    |                     |                                       | to have 4-5 hrs of no rain.   |
| Animal Scien Name of the | Growth stage        | Disease/                              | Agro-meteorological advisories  |
| animal                   | Growth stage        | infestation                           | Agro-inctcorological auvisories   |
| Poultry                  | All susceptible age | Endoparasites                         | - De-worm using Piperazine citrate.   |
| Tours                    | groups (as and when |                                       | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.                             |
|                          | required)           | Coccidiosis                           | - As a preventive measure against coccidiosis, provide Supercox @ 1g/lit of           |
|                          | 1                   | Coccidiosis                           |   |
|                          |                     | 1:1 :11 : 0                           | water.  |
|                          |                     | coli bacillosis ?                     | Add sanitizer in drinking water and avoid muddy water for drinking purpose.           |
| Sheep/ Goat              | Above 3 months of   | Endoparasite/                         | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied                |
|                          | age (as and when    | Ectoparasite                          | with Livozyme @ 50ml daily.   |
|                          | required)           | B.Q.                                  | - Vaccinate against B.Q. @ 1ml sub- cutaneously.                                      |
| Pig                      | Above 3 months of   | Ticks                                 | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while         |
| 115                      | age (as and when    | 110113                                | brushing the animal.  |
|                          | required)           | Protozoan Parasites                   | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.                            |
|                          |                     |                                       |   |
|                          |                     | Endo/ Ecto parasite or skin infection | - Inject Neomac @ 1 ml/ 10 kg body weight.  |
| Cattle /                 | Above 3 months of   | Endoparasite/                         | - Inject Parid @ 1 ml/ 50 kg body weight.   |
| Buffalo/                 | age (as and when    | Ectoparasite                          | inject rand & r mi/ 50 kg body weight.  |
| Mithun                   | required)           | _                                     | Add Dutay @ 200/lit of water and both animal vains the solution at fortnish           |
| 112111111                | requires)           | Tick                                  | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight         |
|                          |                     |                                       | interval.   |
|                          |                     | Deworming                             | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.   |
|                          |                     | B.Q./ H.S.                            | Vaccinate against B.Q./ H.S. sub- cutaneously.  |
| Fishery:                 |                     |                                       |   |
| - Encircle pon           | d with net to avoid | escape of fish durin                  | g rainy days.   |
| Carp culture             | nurseries           | Pond and water                        | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime               |
| Carp culture             | nurseries           | Pond and water                        | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +                  |
|                          |                     |                                       |   |
|                          |                     | D 1                                   | 75kg SSP in nursery pond water 15 days before spawn stocking.                         |
|                          |                     | Feed                                  | Well balanced feeds should be provided 2-3 times a day @ 5-10% body                   |
|                          |                     |                                       | weight/day.   |
|                          |                     | Fish                                  | 20-30 million spawn can be stocked in one ha pond.                                    |
|                          | Grow -out           | Pond and water                        | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha                 |
|                          | _                   |                                       | at 30 days interval.  |
|                          |                     | Fish                                  | 8000-10,000 fingerlings can be stocked per ha.  |
|                          |                     |                                       | Sampling of fish for growth, diseases (if any) should be done by regular              |
|                          |                     |                                       |   |
|                          |                     | D 1                                   | netting.  |
|                          |                     | Feed                                  | Well balanced feed should be provided @ 3-5% body weight per day in 2-3               |
|                          |                     |                                       | splits.   |
| Paddy cum                | Field               |                                       | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30-        |
| fish culture             | 11010               |                                       | 40% of the field may be converted into trench/pond for fish culture.                  |



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



### "Integrated Agromet Advisory Services"

### MANIPUR BULLETIN 24<sup>th</sup> June, 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Bishnupur (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $30.0-33.0~^{\circ}\text{C}$  & minimum temp.  $21.0-23.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 99 % (maximum RH) & 72 % (minimum RH). The average wind speed may be 2-4 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

### Weather Outlook for subsequent 4 days from 27<sup>th</sup> June to 1<sup>st</sup> July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>- Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>- Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>- Soak seeds for 24hrs then incubate before sowing.</li> <li>- Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>   |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | <ul> <li>- Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul> |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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



| Cauliflower                             | Land                       |                               | - Prepare raised nursery bed with temporary rain shed and drain out excess                            |
|---|----------------------------|-------------------------------|---|
| (Early)                                 | preparation to             |                               | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soi                  |
| (====================================== | nursery sowing             |                               | with Captan 50 W.P. Till germination the cover bed with paddy straw.                                  |
| Citrus                                  | <i>y y y y y y y y y y</i> |                               | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of                         |
|   |                            |                               | insect pest and disease.  |
| Cucurbits                               | Fruiting to                |                               | - Avoid water logging near crop.  |
|   | harvesting                 |                               | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpkir                           |
|   |                            |                               | bottle gourd fruits for crops trilling on the ground to avoid contact with soil.                      |
| Vegetables                              |                            |                               | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against                              |
|   |                            |                               | powdery Mildew when there seems the probabitilty to have 4-5 hrs of n                                 |
|   |                            |                               | rain.   |
|   |                            |                               | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of                               |
|   |                            |                               | water to protect from any fungal disease when there seems the probabitilt to have 4-5 hrs of no rain. |
| Animal Scien                            | 200                        |                               | to have 4-3 his of no fam.  |
| Name of the                             | Growth stage               | Disease/                      | Agro-meteorological advisories  |
| animal                                  | Growin stage               | infestation                   | Agro-meteorological advisories  |
| Poultry                                 | All susceptible age        | Endoparasites                 | - De-worm using Piperazine citrate.   |
| -                                       | groups (as and when        |                               | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.   |
|   | required)                  | Coccidiosis                   | - As a preventive measure against coccidiosis, provide Supercox @ 1g/ lit of                          |
|   |                            |                               | water.  |
|   |                            | coli bacillosis ?             | Add sanitizer in drinking water and avoid muddy water for drinking purpose.                           |
| Sheep/ Goat                             | Above 3 months of          | Endoparasite/                 | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied                                |
|   | age (as and when           | Ectoparasite                  | with Livozyme @ 50ml daily.   |
|   | required)                  | B.Q.                          | - Vaccinate against B.Q. @ 1ml sub- cutaneously.  |
| Pig                                     | Above 3 months of          | Ticks                         | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while                         |
|   | age (as and when           |                               | brushing the animal.  |
|   | required)                  | Protozoan Parasites           | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.  |
|   |                            | Endo/ Ecto parasite           | - Inject Neomac @ 1 ml/ 10 kg body weight.  |
| Cattle /                                | Above 3 months of          | or skin infection             | - Inject Parid @ 1 ml/ 50 kg body weight.   |
| Buffalo/                                | age (as and when           | Endoparasite/<br>Ectoparasite | - Inject Parid & 1 mi/ 50 kg body weight.   |
| Mithun                                  | required)                  | Tick                          | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight                         |
|   |                            | TICK                          | interval.   |
|   |                            | Deworming                     | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.   |
|   |                            | B.Q./ H.S.                    | Vaccinate against B.Q./ H.S. sub- cutaneously.  |
| 77. 1                                   |                            | D.Q./ 11.5.                   | vaccinate against B.Q./ 11.5. sub- cutaneously.   |
| Fishery:                                |                            |                               |   |
| <ul> <li>Encircle pon</li> </ul>        |                            | escape of fish durin          | Ţ   |
| Carp culture                            | nurseries                  | Pond and water                | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime                               |
|   |                            |                               | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +                                  |
|   |                            | P 1                           | 75kg SSP in nursery pond water 15 days before spawn stocking.   |
|   |                            | Feed                          | Well balanced feeds should be provided 2-3 times a day @ 5-10% body                                   |
|   |                            | Fish                          | weight/day.  20-30 million spawn can be stocked in one ha pond.                                       |
|   |                            | Pond and water                | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha                                 |
|   | Grow -out                  | rond and water                | at 30 days interval.  |
|   |                            | Fish                          | 8000-10,000 fingerlings can be stocked per ha.  |
|   |                            | 1 1011                        | Sampling of fish for growth, diseases (if any) should be done by regular                              |
|   |                            |                               | netting.  |
|   |                            | Feed                          | Well balanced feed should be provided @ 3-5% body weight per day in 2-3                               |
|   |                            |                               | splits.   |
| Paddy cum                               | Field                      |                               | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30                         |
| fish culture                            | 1                          |                               | 40% of the field may be converted into trench/pond for fish culture.                                  |



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



### "Integrated Agromet Advisory Services"

## MANIPUR BULLETIN 24<sup>th</sup> June, 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 25<sup>th</sup> to 29<sup>th</sup> June, 14 as given below:

Significant past weather for the preceding bi-weekly of Imphal - West (20<sup>th</sup> to 23<sup>rd</sup> June, 2014)

During past four days sky was mainly cloudy to cloudy but partly cloudy during morning hours of  $21^{\rm st}$  June. **79.1 mm** rainfall was recorded during past four days. Maximum temperature range observed was 25.7-29.5 °C, range of minimum temperature observed was 22.0-22.9 °C, mean relative humidity observed in morning and afternoon were 92.5 % and 88.5 % respectively. The average wind speed range was 0.5-0.8 km/hr.

Weather forecast for next five days of Chandel (25<sup>th</sup> to 29<sup>th</sup> June, 2014)

There may be light rain upto Sunday. Sky may be partly cloudy to mainly cloudy with maximum temp. of  $31.0-34.0~^{\circ}\text{C}$  & minimum temp.  $22.0-24.0~^{\circ}\text{C}$ . Relative Humidity may reach a maximum of 98 % (maximum RH) & 81 % (minimum RH). The average wind speed may be 4-6 km/hr during next five days.

#### **Main Weather Oservations**

Kalpana-1: Cloud imagery of 0530 hours IST shows low/ medium clouds over northeast India

#### Weather warnings upto 26<sup>th</sup> June, 2014

Heavy rainfall would occur at isolated places over Manipur

#### Weather Outlook for subsequent 4 days from 27th June to 1st July, 2014

| Name of the crop       | Stage                           | Pest and disease infestation | Agro-meteorological advisories   |
|------------------------|---------------------------------|------------------------------|--|
| Field Crops            |                                 |                              | ,  |
| * Avoid water lo       | gging in the crop fie           | lds.                         |  |
| Rice                   | Grain filling stage to maturity |                              | - Maintain water level at 5-8 cm. Drain/ pump out excess water from the crop field.  |
|                        | in early kharif<br>rice         | Plant hopper                 | - Apply Chloropyriphos 20EC @1.3 lit in 500-700 lit of water per hectare.  |
|                        | Sowing of Main<br>Kharif rice   |                              | <ul> <li>Use certified seeds for sowing. Rate: 60 kg/ ha.</li> <li>Treat seeds with Tricyclazole 75WP or Carbendazim @ 2g/ kg of seed.</li> <li>Soak seeds for 24hrs then incubate before sowing.</li> <li>Rice field may be prepared for nursery rising before 20-25 days of sowing.</li> </ul>   |
| Maize                  | Kharif Maize:<br>vegetative     |                              | <ul> <li>Weeding may be done by hand or apply Simazine @ 0.75 kg a.i./ ha.</li> <li>Earthing up and thinning to single plant may be done.</li> <li>When the plant is knee high apply fertilizer @ 25 kg N/ha at the time of inter-culture operation.</li> </ul>  |
| Soybean /<br>Groundnut | Vegetative                      |                              | <ul> <li>- Hand weeding should be done before 30-35 days after sowing or Fluchloralin 45EC may be applied @ 0.75 kg/ha as pre-planting soil incorporation for effective control of weeds in soybean and groundnut. Also, earthing-up and thinning may be done.</li> <li>- Avoid leaf eating caterpillars/ insects at least upto 60 days after sowing.</li> </ul> |
| Blackgram              | Sowing to vegetative            |                              | <ul> <li>-Weeding may be done if the weed population is high.</li> <li>- Seed rate is 10-15 kg/ ha. Sowing may be done by broadcasting or dibbling. Treat the seed with Thiram or Captan @ 2 kg/seed.</li> </ul>   |
| Rice bean              | Sowing to early vegetative      |                              | - Seed rate: 20 kg/ha Sow by dibbling (row to row spacing of 45cm).  |
| Storage                |                                 |                              | - Clean and store the seeds in RC-seed bins after proper drying. Check for germination of seeds or fungal growth. After proper drying, store grains/ seeds in well ventilated godowns.   |



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



| Cauliflower        | Land                |                         | - Prepare raised nursery bed with temporary rain shed and drain out exces            |
|--------------------|---------------------|-------------------------|--|
| (Early)            | preparation to      |                         | water near bed area. Apply 1-2 kg FYM/ m <sup>2</sup> of nursery bed. Drench the soi |
| (Eurly)            | nursery sowing      |                         | with Captan 50 W.P. Till germination the cover bed with paddy straw.                 |
| Citrus             | nursery sowing      |                         | - Spray Ridomil (2.5 g/lit) + Monocrotophos (1 ml/lit) to avoid the attack of        |
|                    |                     |                         | insect pest and disease.   |
| Cucurbits          | Fruiting to         |                         | - Avoid water logging near crop.   |
| Cucuibits          | harvesting          |                         | -Provide bedding material (dried twigs, leaves, polythene sheet) to pumpking         |
|                    | narvesting          |                         | bottle gourd fruits for crops trilling on the ground to avoid contact with soil      |
| Vegetables         |                     |                         | Spray Bayleton @ 7 gm/ 10 lit of water as a prophylactic measure against             |
|                    |                     |                         | powdery Mildew when there seems the probabitilty to have 4-5 hrs of n                |
|                    |                     |                         | rain.  |
|                    |                     |                         | Also spray Sixer (Carbendazime(12%) + Mencozeb (63%)) @ 2 gm / litre of              |
|                    |                     |                         | water to protect from any fungal disease when there seems the probabitile            |
|                    |                     |                         | to have 4-5 hrs of no rain.  |
| Animal Scien       | ces                 |                         |  |
| Name of the animal | Growth stage        | Disease/<br>infestation | Agro-meteorological advisories   |
| Poultry            | All susceptible age | Endoparasites           | - De-worm using Piperazine citrate.  |
|                    | groups (as and when |                         | - Give antibiotic like Sulpha drug @ 30-40 ml/ 100 birds.                            |
|                    | required)           | Coccidiosis             | - As a preventive measure against coccidiosis, provide Supercox @ 1g/lit of          |
|                    |                     |                         | water.   |
|                    |                     | coli bacillosis ?       | Add sanitizer in drinking water and avoid muddy water for drinking purpose.          |
| Sheep/ Goat        | Above 3 months of   | Endoparasite/           | Deworm using Minthal bolus @ ½ bolus per 20 kg body weight accompanied               |
| •                  | age (as and when    | Ectoparasite            | with Livozyme @ 50ml daily.  |
|                    | required)           | B.Q.                    | - Vaccinate against B.Q. @ 1ml sub- cutaneously.                                     |
| Pig                | Above 3 months of   | Ticks                   | Add Butox liquid @ 2 ml/ lit of water and use the solution twice a week while        |
| 1 ig               | age (as and when    | TICKS                   | brushing the animal.   |
|                    | required)           | Protozoan Parasites     | Give Sulpha drug/ Sulphadimidine @ 1g/kg b.wt. for 7 days.                           |
|                    |                     | Endo/ Ecto parasite     |  |
|                    |                     | or skin infection       | - Inject Neomac @ 1 ml/ 10 kg body weight.   |
| Cattle /           | Above 3 months of   | Endoparasite/           | - Inject Parid @ 1 ml/ 50 kg body weight.  |
| Buffalo/           | age (as and when    | Ectoparasite            | inject raise of the 50 kg 50dy weight  |
| Mithun             | required)           | Tick                    | Add Butox @ 2cc/ lit of water and bath animal using the solution at fortnight        |
|                    |                     |                         | interval.  |
|                    |                     | Deworming               | Deworm with Tolzan F @ 90cc/ 300 kg b.wt.  |
|                    |                     |                         |  |
|                    |                     | B.Q./ H.S.              | Vaccinate against B.Q./ H.S. sub- cutaneously.                                       |
| Fishery:           |                     |                         |  |
| - Encircle pon     | d with net to avoid | escape of fish durin    | ng rainy days.   |
| Carp culture       | nurseries           | Pond and water          | - Maintain water depth at 1.0-1.5m for stocking fish spawns. Apply lime              |
| Curp current       | narseries           |                         | @300kg/ha. Apply a mixture of raw cow dung @ 5000kg/ha +75 kg urea +                 |
|                    |                     |                         | 75kg SSP in nursery pond water 15 days before spawn stocking.                        |
|                    |                     | Feed                    | Well balanced feeds should be provided 2-3 times a day @ 5-10% body                  |
|                    |                     |                         | weight/day.  |
|                    |                     | Fish                    | 20-30 million spawn can be stocked in one ha pond.                                   |
|                    | Grow -out           | Pond and water          | Regular manuring may be done with a slurry of Raw Cow Dung @1500kg/ha                |
|                    |                     |                         | at 30 days interval.   |
|                    |                     | Fish                    | 8000-10,000 fingerlings can be stocked per ha.                                       |
|                    |                     |                         | Sampling of fish for growth, diseases (if any) should be done by regular             |
|                    |                     | Food                    | netting.   |
|                    |                     | Feed                    | Well balanced feed should be provided @ 3-5% body weight per day in 2-3 splits.      |
| Paddy cum          | Field               |                         | Trenches/channels in rice field with a depth of 1.0 - 1.5m should be made. 30        |
| fish culture       | 1 1010              |                         | 40% of the field may be converted into trench/pond for fish culture.                 |