



**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****9<sup>th</sup> June, 2017****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 10<sup>th</sup> to 14<sup>th</sup> June, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 8<sup>th</sup> June, 2017)**

Observed mainly clear to partly cloudy but mainly cloudy during afternoon hours of 8<sup>th</sup> June and **17.6 mm** rainfall was recorded during past three days. Maximum temperature range of 32.8 to 33.8 °C and minimum temperature range of 22.0 to 23.5 °C with mean relative humidity 86.33 % max and 57.66 % min was recorded in the past three days.

**Weather forecast for next five days of Bishnupur (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

Likely to have widespread heavy rainfall over Manipur from upto 13<sup>th</sup> June with mainly cloudy to overcast sky and maximum temp. 28-32 °C & minimum temp. 23 - 25 °C. Relative humidity may reach up to 100 % (max RH) & 79 % (min RH). The average wind speed may be 0-2 km/hr.

| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
| <b>Soybean / Groundnut</b>       | Vegetative  |                         | - Construct proper drainage system to avoid water logging in the crop field.   |
| <b>Kharif Maize</b>              | Vegetative  |                         | Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.<br>- Avoid water logging in the crop field.   |
| <b>Blackgram &amp; Rice bean</b> | Sowing to vegetative  |                         | - Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds.<br>- Avoid water logging in the crop field.  |
| <b>Seeds storage</b>             | Post harvest management                                     |                         | - For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.<br>- For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.  |
| <b>Horticulture Crops</b>        |   |                         |  |
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Colocasia</b>                 | Vegetative  |                         | At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.<br>- 45-50 days old plants may be top dressed with 4.5kg Urea + 156kg SSP/sangam.<br>- Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell. |
| <b>Cauliflower</b>               | Nursery   |                         | - Preparation of nursery may be started for early cauliflower in the upland area or in rain protective structures are available with the farmers.  |
| <b>Cowpea</b>                    | Sowing  |                         | Seeds may be sown in prepared land keeping space of 10-15cm between seeds and 45-60 cm between rows. For present season varieties recommended are-Pusa Barsati, Pusa Do- fasli & Long green.   |
| <b>Tree bean</b>                 | Planting  |                         | Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.   |
| <b>French Bean/ Bhindi</b>       | Flowering and fruiting to harvesting                        |                         | - Weeding may be done to avoid insect pest infestation.<br>- Retain healthy disease free fruits for seeds.   |



# ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

## “Gramin Krishi Mausam Seva”



|                         |                                      |  |   |
|-------------------------|--------------------------------------|--|---|
| <b>Turmeric</b>         | Vegetative                           |  | - Weeding and interculture operation may be done after rains and apply 100kg Urea and 300kg kg SSP at 2-3 months.   |
| <b>Tomato/ Brinjal</b>  | Flowering and fruiting to harvesting |  | - Apply 25kg Urea after 25-30days of transplanting.<br>- Weeding may be done to avoid insect pest infestation.  |
| <b>Chilli/ capsicum</b> | Flowering and fruiting to harvesting |  | - In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.<br>- Weeding may be done to avoid insect pest infestation. |

### Animal Sciences

\* Provide clean drinking water for birds and animals.

| Name of bird/ animal                   | Stage                                 | Disease and Management | Agro-meteorological advisories  |
|--|---------------------------------------|------------------------|---|
| <b>Poultry (Chicken/ Turkey/ Duck)</b> | All age groups                        | Fowl Pox               | Vaccinate against fowl pox.   |
|  |                                       | Coccidiosis            | - Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.  |
|  |                                       | Deworming              | ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.   |
|  |                                       |                        | - Bleaching powder may be spread near farm premises.<br>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.<br>- Avoid caking of litter materials. |
| <b>Sheep/ Goat</b>                     | All age groups                        | Vaccination            | - Sheep should be vaccinated against B.Q.   |
| <b>Pig</b>                             | All age groups except the young ones  | De-worming             | - De-worming of animals should be done using Abendazole @7.5 mg/kg b.wt.  |
|  |                                       | Vaccination            | - Vaccinate against FMD.  |
|  |                                       | Management             | - Provide adequate amount of wholesome water (drinking).<br>- Essential body salts may be provided.   |
| <b>Cattle</b>                          | All age groups excepts the young ones | B.Q. & H.S.            | Vaccinate against B.Q. & H.S.   |
|  |                                       | Deworming              | Deworm with Tolzan- F   |
|  |                                       | Management             | ➤ Provide wholesome water.<br>➤ Protection from high temp may be ensured.<br>➤ Electrolytes in the form of powder/ liquid may be given.<br>➤ Increase salt level in feed.                         |

### Fishery:

\* Encircle pond with happa net or raise the pond dyke height to avoid escape of fis hes.

| Type of Farming | Stage               | Management          | Agro-metrological advisories   |
|-----------------|---------------------|---------------------|--|
| Carp culture    | Nurseries/ grow-out | Pond and water      | Maintain minimum depth of 1.5 m.<br>Apply Lime/ Green AQ for maintaining good quality water.   |
|                 |                     | Feed                | Provide 2-3 times @ 5-10% body weight per day.<br>Provide good feed having 30% crude protein fortified with vitamins and mineral.  |
|                 | Brooder             | Pond water and feed | Maintain minimum depth of 2.0-2.2 m.<br>Provide feed @ 3-5 % body weight per day.  |
|                 | Breeding            | Hormone             | Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.                             |
|                 | Seed production     |                     | Maintain good quality water having p <sup>H</sup> 7-8, Dissolved Oxygen: 5-8ppm; CO <sub>2</sub> : Nil – 0.3ppm and alkalinity 70-110 ppm.   |
|                 | Hatcheries          | water               | Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days. |

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



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| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
| <b>Soybean / Groundnut</b>       | Vegetative  |                         | - Construct proper drainage system to avoid water logging in the crop field.   |
| <b>Kharif Maize</b>              | Vegetative  |                         | Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.<br>- Avoid water logging in the crop field.   |
| <b>Blackgram &amp; Rice bean</b> | Sowing to vegetative  |                         | - Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds.<br>- Avoid water logging in the crop field.  |
| <b>Seeds storage</b>             | Post harvest management                                     |                         | - For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.<br>- For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.  |
| <b>Horticulture Crops</b>        |   |                         |  |
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| <b>Cauliflower</b>               | Nursery   |                         | - Preparation of nursery may be started for early cauliflower in the upland area or in rain protective structures are available with the farmers.  |
| <b>Cowpea</b>                    | Sowing  |                         | Seeds may be sown in prepared land keeping space of 10-15cm between seeds and 45-60 cm between rows. For present season varieties recommended are-Pusa Barsati, Pusa Do- fasli & Long green.   |
| <b>Tree bean</b>                 | Planting  |                         | Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.   |
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| Type of Farming | Stage               | Management          | Agro-metrological advisories   |
|-----------------|---------------------|---------------------|--|
| Carp culture    | Nurseries/ grow-out | Pond and water      | Maintain minimum depth of 1.5 m.<br>Apply Lime/ Green AQ for maintaining good quality water.   |
|                 |                     | Feed                | Provide 2-3 times @ 5-10% body weight per day.<br>Provide good feed having 30% crude protein fortified with vitamins and mineral.  |
|                 | Brooder             | Pond water and feed | Maintain minimum depth of 2.0-2.2 m.<br>Provide feed @ 3-5 % body weight per day.  |
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**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****9<sup>th</sup> June, 2017****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 10<sup>th</sup> to 14<sup>th</sup> June, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 8<sup>th</sup> June, 2017)**

Observed mainly clear to partly cloudy but mainly cloudy during afternoon hours of 8<sup>th</sup> June and **17.6 mm** rainfall was recorded during past three days. Maximum temperature range of 32.8 to 33.8 °C and minimum temperature range of 22.0 to 23.5 °C with mean relative humidity 86.33 % max and 57.66 % min was recorded in the past three days.

**Weather forecast for next five days of Senapati (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

Likely to have widespread heavy rainfall over Manipur from upto 13<sup>th</sup> June with mainly cloudy to overcast sky and maximum temp. 29-32 °C & minimum temp. 21-22° C. Relative humidity may reach up to 99 % (max RH) & 64 % (min RH). The average wind speed may be 0-2 km/hr.

| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
| <b>Soybean / Groundnut</b>       | Vegetative  |                         | - Construct proper drainage system to avoid water logging in the crop field.   |
| <b>Kharif Maize</b>              | Vegetative  |                         | Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.<br>- Avoid water logging in the crop field.   |
| <b>Blackgram &amp; Rice bean</b> | Sowing to vegetative  |                         | - Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds.<br>- Avoid water logging in the crop field.  |
| <b>Seeds storage</b>             | Post harvest management                                     |                         | - For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.<br>- For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.  |
| <b>Horticulture Crops</b>        |   |                         |  |
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Colocasia</b>                 | Vegetative  |                         | At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.<br>- 45-50 days old plants may be top dressed with 4.5kg Urea + 156kg SSP/sangam.<br>- Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell. |
| <b>Cauliflower</b>               | Nursery   |                         | - Preparation of nursery may be started for early cauliflower in the upland area or in rain protective structures are available with the farmers.  |
| <b>Cowpea</b>                    | Sowing  |                         | Seeds may be sown in prepared land keeping space of 10-15cm between seeds and 45-60 cm between rows. For present season varieties recommended are-Pusa Barsati, Pusa Do- fasli & Long green.   |
| <b>Tree bean</b>                 | Planting  |                         | Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.   |
| <b>French Bean/ Bhindi</b>       | Flowering and fruiting to harvesting                        |                         | - Weeding may be done to avoid insect pest infestation.<br>- Retain healthy disease free fruits for seeds.   |



# ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

## “Gramin Krishi Mausam Seva”



|                         |                                      |  |   |
|-------------------------|--------------------------------------|--|---|
| <b>Turmeric</b>         | Vegetative                           |  | - Weeding and interculture operation may be done after rains and apply 100kg Urea and 300kg kg SSP at 2-3 months.   |
| <b>Tomato/ Brinjal</b>  | Flowering and fruiting to harvesting |  | - Apply 25kg Urea after 25-30days of transplanting.<br>- Weeding may be done to avoid insect pest infestation.  |
| <b>Chilli/ capsicum</b> | Flowering and fruiting to harvesting |  | - In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.<br>- Weeding may be done to avoid insect pest infestation. |

### Animal Sciences

\* Provide clean drinking water for birds and animals.

| Name of bird/ animal                   | Stage                                 | Disease and Management | Agro-meteorological advisories  |
|--|---------------------------------------|------------------------|---|
| <b>Poultry (Chicken/ Turkey/ Duck)</b> | All age groups                        | Fowl Pox               | Vaccinate against fowl pox.   |
|  |                                       | Coccidiosis            | - Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.  |
|  |                                       | Deworming              | ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.   |
|  |                                       |                        | - Bleaching powder may be spread near farm premises.<br>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.<br>- Avoid caking of litter materials. |
| <b>Sheep/ Goat</b>                     | All age groups                        | Vaccination            | - Sheep should be vaccinated against B.Q.   |
| <b>Pig</b>                             | All age groups except the young ones  | De-worming             | - De-worming of animals should be done using Abendazole @7.5 mg/kg b.wt.  |
|  |                                       | Vaccination            | - Vaccinate against FMD.  |
|  |                                       | Management             | - Provide adequate amount of wholesome water (drinking).<br>- Essential body salts may be provided.   |
| <b>Cattle</b>                          | All age groups excepts the young ones | B.Q. & H.S.            | Vaccinate against B.Q. & H.S.   |
|  |                                       | Deworming              | Deworm with Tolzan- F   |
|  |                                       | Management             | ➤ Provide wholesome water.<br>➤ Protection from high temp may be ensured.<br>➤ Electrolytes in the form of powder/ liquid may be given.<br>➤ Increase salt level in feed.                         |

### Fishery:

\* Encircle pond with happa net or raise the pond dyke height to avoid escape of fis hes.

| Type of Farming | Stage               | Management          | Agro-metrological advisories   |
|-----------------|---------------------|---------------------|--|
| Carp culture    | Nurseries/ grow-out | Pond and water      | Maintain minimum depth of 1.5 m.<br>Apply Lime/ Green AQ for maintaining good quality water.   |
|                 |                     | Feed                | Provide 2-3 times @ 5-10% body weight per day.<br>Provide good feed having 30% crude protein fortified with vitamins and mineral.  |
|                 | Brooder             | Pond water and feed | Maintain minimum depth of 2.0-2.2 m.<br>Provide feed @ 3-5 % body weight per day.  |
|                 | Breeding            | Hormone             | Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.                             |
|                 | Seed production     |                     | Maintain good quality water having p <sup>H</sup> 7-8, Dissolved Oxygen: 5-8ppm; CO <sub>2</sub> : Nil – 0.3ppm and alkalinity 70-110 ppm.   |
|                 | Hatcheries          | water               | Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days. |

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





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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****9<sup>th</sup> June, 2017****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 10<sup>th</sup> to 14<sup>th</sup> June, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 8<sup>th</sup> June, 2017)**

Observed mainly clear to partly cloudy but mainly cloudy during afternoon hours of 8<sup>th</sup> June and **17.6 mm** rainfall was recorded during past three days. Maximum temperature range of 32.8 to 33.8 °C and minimum temperature range of 22.0 to 23.5 °C with mean relative humidity 86.33 % max and 57.66 % min was recorded in the past three days.

**Weather forecast for next five days of Tamenglong (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

Likely to have widespread heavy rainfall over Manipur from upto 13<sup>th</sup> June with mainly cloudy to overcast sky and maximum temp. 29-32 °C & minimum temp. 22-24° C. Relative humidity may reach up to 100 % (max RH) & 68 % (min RH). The average wind speed may be 0-2 km/hr.

| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
| <b>Soybean / Groundnut</b>       | Vegetative  |                         | - Construct proper drainage system to avoid water logging in the crop field.   |
| <b>Kharif Maize</b>              | Vegetative  |                         | Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.<br>- Avoid water logging in the crop field.   |
| <b>Blackgram &amp; Rice bean</b> | Sowing to vegetative  |                         | - Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds.<br>- Avoid water logging in the crop field.  |
| <b>Seeds storage</b>             | Post harvest management                                     |                         | - For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.<br>- For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.  |
| <b>Horticulture Crops</b>        |   |                         |  |
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Colocasia</b>                 | Vegetative  |                         | At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.<br>- 45-50 days old plants may be top dressed with 4.5kg Urea + 156kg SSP/sangam.<br>- Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell. |
| <b>Cauliflower</b>               | Nursery   |                         | - Preparation of nursery may be started for early cauliflower in the upland area or in rain protective structures are available with the farmers.  |
| <b>Cowpea</b>                    | Sowing  |                         | Seeds may be sown in prepared land keeping space of 10-15cm between seeds and 45-60 cm between rows. For present season varieties recommended are-Pusa Barsati, Pusa Do- fasli & Long green.   |
| <b>Tree bean</b>                 | Planting  |                         | Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.   |
| <b>French Bean/ Bhindi</b>       | Flowering and fruiting to harvesting                        |                         | - Weeding may be done to avoid insect pest infestation.<br>- Retain healthy disease free fruits for seeds.   |



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| <b>Tomato/ Brinjal</b>  | Flowering and fruiting to harvesting |  | - Apply 25kg Urea after 25-30days of transplanting.<br>- Weeding may be done to avoid insect pest infestation.  |
| <b>Chilli/ capsicum</b> | Flowering and fruiting to harvesting |  | - In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.<br>- Weeding may be done to avoid insect pest infestation. |

### Animal Sciences

\* Provide clean drinking water for birds and animals.

| Name of bird/ animal                   | Stage                                 | Disease and Management | Agro-meteorological advisories  |
|--|---------------------------------------|------------------------|---|
| <b>Poultry (Chicken/ Turkey/ Duck)</b> | All age groups                        | Fowl Pox               | Vaccinate against fowl pox.   |
|  |                                       | Coccidiosis            | - Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.  |
|  |                                       | Deworming              | ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.   |
|  |                                       |                        | - Bleaching powder may be spread near farm premises.<br>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.<br>- Avoid caking of litter materials. |
| <b>Sheep/ Goat</b>                     | All age groups                        | Vaccination            | - Sheep should be vaccinated against B.Q.   |
| <b>Pig</b>                             | All age groups except the young ones  | De-worming             | - De-worming of animals should be done using Abendazole @7.5 mg/kg b.wt.  |
|  |                                       | Vaccination            | - Vaccinate against FMD.  |
|  |                                       | Management             | - Provide adequate amount of wholesome water (drinking).<br>- Essential body salts may be provided.   |
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### Fishery:

\* Encircle pond with happa net or raise the pond dyke height to avoid escape of fis hes.

| Type of Farming | Stage               | Management          | Agro-metrological advisories   |
|-----------------|---------------------|---------------------|--|
| Carp culture    | Nurseries/ grow-out | Pond and water      | Maintain minimum depth of 1.5 m.<br>Apply Lime/ Green AQ for maintaining good quality water.   |
|                 |                     | Feed                | Provide 2-3 times @ 5-10% body weight per day.<br>Provide good feed having 30% crude protein fortified with vitamins and mineral.  |
|                 | Brooder             | Pond water and feed | Maintain minimum depth of 2.0-2.2 m.<br>Provide feed @ 3-5 % body weight per day.  |
|                 | Breeding            | Hormone             | Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.                             |
|                 | Seed production     |                     | Maintain good quality water having p <sup>H</sup> 7-8, Dissolved Oxygen: 5-8ppm; CO <sub>2</sub> : Nil – 0.3ppm and alkalinity 70-110 ppm.   |
|                 | Hatcheries          | water               | Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days. |

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**MANIPUR BULLETIN****9<sup>th</sup> June, 2017****Thoubal**

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**Weather forecast for next five days of Thoubal (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

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| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
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### Animal Sciences

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|-----------------|---------------------|---------------------|--|
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**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****9<sup>th</sup> June, 2017****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 10<sup>th</sup> to 14<sup>th</sup> June, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 8<sup>th</sup> June, 2017)**

Observed mainly clear to partly cloudy but mainly cloudy during afternoon hours of 8<sup>th</sup> June and **17.6 mm** rainfall was recorded during past three days. Maximum temperature range of 32.8 to 33.8 °C and minimum temperature range of 22.0 to 23.5 °C with mean relative humidity 86.33 % max and 57.66 % min was recorded in the past three days.

**Weather forecast for next five days of Ukhrul (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

Likely to have widespread heavy rainfall over Manipur from upto 13<sup>th</sup> June with mainly cloudy to overcast sky and maximum temp. 28-32 °C & minimum temp. 21-22 °C. Relative humidity may reach up to 99 % (max RH) & 77 % (min RH). The average wind speed may be 0-2 km/hr.

| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
| <b>Soybean / Groundnut</b>       | Vegetative  |                         | - Construct proper drainage system to avoid water logging in the crop field.   |
| <b>Kharif Maize</b>              | Vegetative  |                         | Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.<br>- Avoid water logging in the crop field.   |
| <b>Blackgram &amp; Rice bean</b> | Sowing to vegetative  |                         | - Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds.<br>- Avoid water logging in the crop field.  |
| <b>Seeds storage</b>             | Post harvest management                                     |                         | - For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.<br>- For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.  |
| <b>Horticulture Crops</b>        |   |                         |  |
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Colocasia</b>                 | Vegetative  |                         | At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.<br>- 45-50 days old plants may be top dressed with 4.5kg Urea + 156kg SSP/sangam.<br>- Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell. |
| <b>Cauliflower</b>               | Nursery   |                         | - Preparation of nursery may be started for early cauliflower in the upland area or in rain protective structures are available with the farmers.  |
| <b>Cowpea</b>                    | Sowing  |                         | Seeds may be sown in prepared land keeping space of 10-15cm between seeds and 45-60 cm between rows. For present season varieties recommended are-Pusa Barsati, Pusa Do- fasli & Long green.   |
| <b>Tree bean</b>                 | Planting  |                         | Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.   |
| <b>French Bean/ Bhindi</b>       | Flowering and fruiting to harvesting                        |                         | - Weeding may be done to avoid insect pest infestation.<br>- Retain healthy disease free fruits for seeds.   |





# ICAR Research Complex for N.E.H. Region

Manipur Centre, Lamphelpat, Imphal - 795 004

## “Gramin Krishi Mausam Seva”



|                         |                                      |  |   |
|-------------------------|--------------------------------------|--|---|
| <b>Turmeric</b>         | Vegetative                           |  | - Weeding and interculture operation may be done after rains and apply 100kg Urea and 300kg kg SSP at 2-3 months.   |
| <b>Tomato/ Brinjal</b>  | Flowering and fruiting to harvesting |  | - Apply 25kg Urea after 25-30days of transplanting.<br>- Weeding may be done to avoid insect pest infestation.  |
| <b>Chilli/ capsicum</b> | Flowering and fruiting to harvesting |  | - In chillies and capsicum, spray Sixer (Carbendazim 12% WP + Mancozeb 63% WP) @ 2 g/ litre of water to control the fungal attack after rains.<br>- Weeding may be done to avoid insect pest infestation. |

### Animal Sciences

\* Provide clean drinking water for birds and animals.

| Name of bird/ animal                   | Stage                                 | Disease and Management | Agro-meteorological advisories  |
|--|---------------------------------------|------------------------|---|
| <b>Poultry (Chicken/ Turkey/ Duck)</b> | All age groups                        | Fowl Pox               | Vaccinate against fowl pox.   |
|  |                                       | Coccidiosis            | - Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.  |
|  |                                       | Deworming              | ➤ Use Albendazole liquid @ 20-40 ml for 100 adult birds and repeat it next day with half the dose at regular interval of 3 weeks.   |
|  |                                       |                        | - Bleaching powder may be spread near farm premises.<br>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.<br>- Avoid caking of litter materials. |
| <b>Sheep/ Goat</b>                     | All age groups                        | Vaccination            | - Sheep should be vaccinated against B.Q.   |
| <b>Pig</b>                             | All age groups except the young ones  | De-worming             | - De-worming of animals should be done using Abendazole @7.5 mg/kg b.wt.  |
|  |                                       | Vaccination            | - Vaccinate against FMD.  |
|  |                                       | Management             | - Provide adequate amount of wholesome water (drinking).<br>- Essential body salts may be provided.   |
| <b>Cattle</b>                          | All age groups excepts the young ones | B.Q. & H.S.            | Vaccinate against B.Q. & H.S.   |
|  |                                       | Deworming              | Deworm with Tolzan- F   |
|  |                                       | Management             | ➤ Provide wholesome water.<br>➤ Protection from high temp may be ensured.<br>➤ Electrolytes in the form of powder/ liquid may be given.<br>➤ Increase salt level in feed.                         |

### Fishery:

\* Encircle pond with happa net or raise the pond dyke height to avoid escape of fis hes.

| Type of Farming | Stage               | Management          | Agro-metrological advisories   |
|-----------------|---------------------|---------------------|--|
| Carp culture    | Nurseries/ grow-out | Pond and water      | Maintain minimum depth of 1.5 m.<br>Apply Lime/ Green AQ for maintaining good quality water.   |
|                 |                     | Feed                | Provide 2-3 times @ 5-10% body weight per day.<br>Provide good feed having 30% crude protein fortified with vitamins and mineral.  |
|                 | Brooder             | Pond water and feed | Maintain minimum depth of 2.0-2.2 m.<br>Provide feed @ 3-5 % body weight per day.  |
|                 | Breeding            | Hormone             | Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ 0.5 ml/kg of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.                                    |
|                 | Seed production     |                     | Maintain good quality water having p <sup>H</sup> 7-8, Dissolved Oxygen: 5-8ppm; CO <sub>2</sub> : Nil – 0.3ppm and alkalinity 70-110 ppm.   |
|                 | Hatcheries          | water               | Hatching can be done in traditional hapas having outer & inner hapas or circular hatcheries. A mild current with fine shower is needed for circular hatcheries. Feed should not be given for 3 days. |

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



**ICAR Research Complex for N.E.H. Region**  
**Manipur Centre, Lamphelpat, Imphal - 795 004**  
**“Gramin Krishi Mausam Seva”**

**MANIPUR BULLETIN****9<sup>th</sup> June, 2017****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 10<sup>th</sup> to 14<sup>th</sup> June, 2017 as below:

**Significant past weather for the preceding bi-weekly of Imphal - West (6<sup>th</sup> to 8<sup>th</sup> June, 2017)**

Observed mainly clear to partly cloudy but mainly cloudy during afternoon hours of 8<sup>th</sup> June and **17.6 mm** rainfall was recorded during past three days. Maximum temperature range of 32.8 to 33.8 °C and minimum temperature range of 22.0 to 23.5 °C with mean relative humidity 86.33 % max and 57.66 % min was recorded in the past three days.

**Weather forecast for next five days of Imphal East (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

Likely to have widespread heavy rainfall over Manipur from upto 13<sup>th</sup> June with mainly cloudy to overcast sky and maximum temp. 28-32 °C & minimum temp. 22 - 24 °C. Relative humidity may reach up to 100 % (max RH) & 74 % (min RH). The average wind speed may be 0-2 km/hr.

| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
|                                  | Nursery to land preparation for transplanting (kharif rice) |                         | - Maintain water level to just submerge soil surface and expose the green aerial sprout after sowing.<br>- Land preparation of main field may be started for transplanting rice seedling. Apply 65kg Urea, 250 kg SSP and 45 kg MOP per hectare at the time of final leveling.   |
| <b>Soybean / Groundnut</b>       | Vegetative  |                         | - Construct proper drainage system to avoid water logging in the crop field.   |
| <b>Kharif Maize</b>              | Vegetative  |                         | Apply 60kg of urea, 65kg of DAP and 30kg of MOP per hectare as a basal application during final ploughing or at the time of sowing. For high altitude spacing may be 50cm x 25cm while for low altitude it may be 60cm x 30cm.<br>- Avoid water logging in the crop field.   |
| <b>Blackgram &amp; Rice bean</b> | Sowing to vegetative  |                         | - Treat the seed with Thiram or Captan before sowing @ 2g/kg seeds.<br>- Avoid water logging in the crop field.  |
| <b>Seeds storage</b>             | Post harvest management                                     |                         | - For seed purpose dry, clean and store the seeds in <b>RC-seed bins</b> after proper drying of seeds along with charcoal at 80:20. Check for moisture content or weight of seeds.<br>- For grains, store grains in well ventilated godowns after drying proper. Spray Malathion 1% on the walls of stores.  |
| <b>Horticulture Crops</b>        |   |                         |  |
| <b>Name of the crop</b>          | <b>Stage</b>  | <b>Pest and disease</b> | <b>Agro-meteorological advisories</b>  |
| <b>Colocasia</b>                 | Vegetative  |                         | At present, earthing up may be done at 1 or 1 ½ month old plants (for normal sowing) and for late sown crops it may be done just after sprouting and second weeding after 1 or 1 ½ month.<br>- 45-50 days old plants may be top dressed with 4.5kg Urea + 156kg SSP/sangam.<br>- Prophylactic measures against leaf blight should be taken up. Spray Redomil@ 1.5g/litre of water or Mancozeb @ 2gm/lit of water twice or thrice at 10 days interval after this wet spell. |
| <b>Cauliflower</b>               | Nursery   |                         | - Preparation of nursery may be started for early cauliflower in the upland area or in rain protective structures are available with the farmers.  |
| <b>Cowpea</b>                    | Sowing  |                         | Seeds may be sown in prepared land keeping space of 10-15cm between seeds and 45-60 cm between rows. For present season varieties recommended are-Pusa Barsati, Pusa Do- fasli & Long green.   |
| <b>Tree bean</b>                 | Planting  |                         | Planting of 2 to 2.5 yrs old tree bean should be done in the pit of size 60 cm x 60 cm x 60 cm. The top soil should be mixed thoroughly with 5kg FYM. As a prophylactic measure against termite/ ants or other soil borne disease, Furadan 3-G @2gm/pit and Captan 50 WP or Sixer (Carbendazim + Mancozeb) @ 1 gm per pit may be incorporated in the soil before planting.   |
| <b>French Bean/ Bhindi</b>       | Flowering and fruiting to harvesting                        |                         | - Weeding may be done to avoid insect pest infestation.<br>- Retain healthy disease free fruits for seeds.   |



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Manipur Centre, Lamphelpat, Imphal - 795 004

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| Name of bird/ animal                   | Stage                                 | Disease and Management | Agro-meteorological advisories  |
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| <b>Poultry (Chicken/ Turkey/ Duck)</b> | All age groups                        | Fowl Pox               | Vaccinate against fowl pox.   |
|  |                                       | Coccidiosis            | - Give Amprolium Powder @2g/lit of drinking water for 5 to 7 days.  |
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|  |                                       |                        | - Bleaching powder may be spread near farm premises.<br>- To avoid dehydration give vit C in drinking water along with other vitamins/ ORS during evening.<br>- Avoid caking of litter materials. |
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### Fishery:

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| Type of Farming | Stage               | Management          | Agro-metrological advisories   |
|-----------------|---------------------|---------------------|--|
| Carp culture    | Nurseries/ grow-out | Pond and water      | Maintain minimum depth of 1.5 m.<br>Apply Lime/ Green AQ for maintaining good quality water.   |
|                 |                     | Feed                | Provide 2-3 times @ 5-10% body weight per day.<br>Provide good feed having 30% crude protein fortified with vitamins and mineral.  |
|                 | Brooder             | Pond water and feed | Maintain minimum depth of 2.0-2.2 m.<br>Provide feed @ 3-5 % body weight per day.  |
|                 | Breeding            | Hormone             | Fish hormones like ovaprim, ovatide or Wova-FH can be injected in both the brooders @ <b>0.5 ml/kg</b> of fish for catla, rohu and mirgal; 0.5-0.7 ml/kg for grass carp.                             |
|                 | Seed production     |                     | Maintain good quality water having p <sup>H</sup> 7-8, Dissolved Oxygen: 5-8ppm; CO <sub>2</sub> : Nil – 0.3ppm and alkalinity 70-110 ppm.   |
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**Weather forecast for next five days of Imphal West (10<sup>th</sup> to 14<sup>th</sup> June, 2017)**

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| <b>Field Crops</b>               |   |                         |  |
|----------------------------------|---|-------------------------|--|
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| <b>Rice</b>                      | Grain filling (Pre-kharif rice)                             |                         | - Maintain water level at 5-8 cm. Drain out excess water if accumulated in the crop field due to rains. Construct proper drainage system in and around the crop field.   |
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|-----------------|---------------------|---------------------|--|
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