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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **40** | **50** | **20** | **20** | **50** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

|  |
| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **60** | **50** | **20** | **20** | **50** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **180** | **50** | **20** | **23** | **30** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

|  |
| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **60** | **40** | **20** | **30** | **30** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **100** | **80** | **30** | **20** | **40** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **80** | **50** | **20** | **30** | **50** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **40** | **50** | **30** | **30** | **60** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **50** | **40** | **10** | **20** | **60** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **100** | **40** | **20** | **20** | **30** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **100** | **50** | **30** | **20** | **30** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **50** | **40** | **10** | **20** | **30** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
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 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
* Remove the excess water from onion nursery. Weeding is advised 20-25 days old nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall.
* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
 |
| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **30** | **20** | **10** | **20** | **50** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Nursery Sowing/ Transplanting | * As medium to heavy rainfall at many places has happened over North Bihar districts over the last forecasted period and in view of good rainfall in coming 3-4 days, farmers are advised to prepare the bunds of their fields so that rain water could be collected for paddy transplanting.
* Farmers are advised to transplant 20-22 days old paddy seedlings in medium and low land areas. Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Weed management is advised in the rice field within 3 to 7 days of transplanting by spraying a solution of *Butachlor@3.0* *liters or* *Pritlachlor@1.5liter**s or* *Pendimethaline@3.0* *liters* in 500-600 liters of water applicable for one hectare.
* Complete the nursery sowing of paddy at the earliest. *Sahbhagi, Prabhat, Dhanlakshmi, Richariya, Saket-4, Rajendra Sweta and Rajendra Bhagwati* are the early varieties of paddy, which are recommended for sowing in north Bihar.
 |
| Cucurbitaceous/other crops  | - | Farmers are suggested for lifting the creepers above the ground on a stand made of bamboo. Drain out the excess water from standing crops and vegetable nurseries.  |
| *Kharif* onion | Nurserysowing | * Complete the nursery sowing of *kharif* onion in raised bed at the earliest. *Agrifound Dark Red (ADR), N-53, Bhima super, Arka kalyan* are recommended varieties for sowing in North Bihar region. Seed should be treated with Captain or Thiram@2.0 gram /kg of seed.
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* Protect the nursery crop against damping off disease infestation.
 |
| Fruit/ Forestry plants | Planting | * Present weather is favorable for planting of new saplings of fruit plants (Mango, litchi, guava, jackfruit, citrus, papaya and banana) and forestry plants. Application of 50 kg FYM is suggested for per plant.
* Farmers are advised to plant healthy banana suckers. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1* are the dwarf varieties recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel* varieties for vegetable use and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are suggested for both vegetable and fruit purpose. The planting distance should be 2.1x2.1 meters for long varieties and 1.5x1.5 meters for dwarf varieties.
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| Livestock | **-** | Vaccination of cattles is advised against Anthrax, Black Quarter and H.S. diseases. Hygiene should be maintained at the place where animals are kept. |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 55****Date: Friday, 12 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.1°C and 25.5°C, respectively. Average relative humidity was 94 percent at 0700 hrs and 75 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.0°C at 0700 hrs and 30.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 0.0 hours and 3.0mm, respectively. At the center, about 79.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(13-17 July, 2019)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13** **July** | **14** **July** | **15****July** | **16****July** | **17** **July** | **Remarks** |
| **Rainfall(mm)** | **180** | **50** | **20** | **50** | **60** | **Moderate to heavy rainfall in next 24-36 hours thereafter light rainfall up to 17th July** |
| **Max. T (°C)** | **29** | **27** | **27** | **26** | **26** | **-** |
| **Mini. T (°C)** | **25** | **24** | **24** | **23** | **23** |
| **Cloud cover (okta)** | **8** | **8** | **8** | **8** | **8** | **Cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **80** | **80** | **80** | **80** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
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**(A. Sattar)**

**(Nodal Officer)**