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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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

**(Begusarai)**

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| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **5** | **5** | **5** | **10** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
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| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **20** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **5** | **5** | **10** | **15** | **15** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **5** | **0** | **10** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **20** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
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* Farmers are advised to take action for controlling of weeds 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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 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
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| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **20** | **10** | **10** | **10** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
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| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Samastipur)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **5** | **10** | **20** | **15** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **15** | **10** | **10** | **10** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
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* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **15** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
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* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

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**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **5** | **30** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
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| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
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| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(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. 59****Date: Friday, 26 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 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Siwan)**

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| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **20** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

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| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
| With high humidity, farmers are advised to monitor the stored grains against insect pests. Farmers are also advised to drain out the excess water from standing crops and vegetable nurseries. |

**(A. Sattar)**

**(Nodal Officer)**

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**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 30.5°C and 25.1°C, respectively. Average relative humidity was 93 percent at 0700 hrs and 70 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.0°C at 0700 hrs and 31.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.5km/hr, 3.0 hours and 2.8mm, respectively. At the center, about 144.0 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(Vaishali)**

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| **Weather parameters** | **27****July** | **28****July** | **29****July** | **30****July** | **31****July** | **Remarks** |
| **Rainfall(mm)** | **20** | **10** | **10** | **20** | **10** | **Light rainfall at isolated places, Moderate rainfall at 1-2 places** |
| **Max. T (°C)** | **30** | **31** | **33** | **33** | **34** | **-** |
| **Mini. T (°C)** | **25** | **25** | **26** | **27** | **27** |
| **Cloud cover (okta)** | **6** | **6** | **7** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **70** | **70** | **70** |  |
| **Wind speed (kmph)** | **15** | **20** | **20** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

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| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * As good rainfall has occurred over North Bihar districts in the last few days and in view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. Complete the transplanting before 30th July.
* Application of 30 kg Nitrogen, 60 kg Phosphorus and 30 kg Potash for long and medium duration varieties and 25 kg Nitrogen, 40 kg Phosphorus and 30 kg Potash per hectare for short duration varieties with 25 kg Zinc Sulphate or 15 kg chelated Zinc per hectare is advised during land preparation.
* Farmers are advised to take action for controlling of weeds 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.
 |
| *Kharif* onion | Land preparation | * Land preparation is advised for *kharif* onion. Application of 150-200 quintals of cow dung/hectare is suggested during land preparation.
* Weeding is advised in onion nursery. Nursery should be covered by net at the height of 6-7 feet for protection against rainfall/scorching sun.
* Protect the late sown onion nursery against attack of insect-pests and diseases.
 |
| Pigeon Pea *(Arher)* | Sowing | * Complete the sowing of Pigeon pea in upland areas without any further delay. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation.
* *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Seed rate@18-20 kg/ha is suggested. Seed should be treated with thiram/Capton @2.5gm/kg of seed.
 |
| Chili | Nursery sowing | Nursery sowing of chili in raised seedbed is advised. Improved varieties such as *Pant mirch-3, Krishna, Arka lohit, Pusa jwala, Pusa sadabahar, Punjab lal, Kashi anmol* and Hybrid varieties such as *Agni rekha, Kalyanpur chaman, Kalyanpur chamatkar, BSS-267* of chili are recommended for sowing in North Bihar. Seed should be treated with Thiram75% dust before sowing.  |
| Fruit plants | Planting | Present weather is suitable for planting of new saplings of fruit plants such as mango, litchi, jackfruit, guava, blackberry, custard apple, lemon etc.  |
| Banana | Planting | Planting of healthy suckers of banana is advised. *Alpaan, Champa, Kanthali, Maalbhog, Chinia, Sakerchinia, PHIA-23* are the tall varieties and *Grandnaine, Robesta, Basrai, PHIA-1(Gold finger),BRS-1* are the dwarf varieties, which are recommended for planting in North Bihar. *Battisha, Sawa, Bankel, Kachkel*,PHIA-3 varieties are used for vegetable purposes and *Kothia, Muthia, Dudhsaager, and Chakia* varieties are used for both vegetables and fruits. The planting distance should be 2.0x2.0 meters for tall varieties and 1.5x1.5 meters for dwarf varieties.  |
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**Medium Range Weather Forecast**

**(27-31 July, 2019)**

 **(West Champaran)**

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