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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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

**(Begusarai)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **10** | **20** | **10** | **40** | **20** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **35** | **20** | **10** | **15** | **0** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **40** | **40** | **20** | **5** | **5** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(A. Sattar)**

**(Nodal Officer)**

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| **Bulletin No. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **50** | **20** | **10** | **20** | **20** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 July,2019** | **Description: F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **60** | **20** | **10** | **20** | **0** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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.
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| *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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **20** | **40** | **10** | **5** | **5** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **30** | **20** | **10** | **20** | **10** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **70** | **50** | **10** | **20** | **10** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **40** | **20** | **0** | **0** | **5** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **50** | **30** | **5** | **5** | **5** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **50** | **40** | **50** | **10** | **20** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **20** | **30** | **10** | **10** | **10** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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 damping off disease.
 |
| Pigeon Pea *(Arher)* | Sowing | Sowing of Pigeon pea in upland areas is advised. *Bahar, Pusa-9, Narendra Arher-1, Rajendra Arher-1 and Maalvia-13* varieties of pigeon pea are recommended for sowing in North Bihar. Application of 20kg/ha Nitrogen, 45kg/ha Phosphorus and 20 kg/ha Potash and 20 kg sulphur/ha is advised during land preparation. 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.  |
| Vegetables | Sowing | Complete the sowing of *kharif* vegetables at the earliest. Regular monitoring is advised against attack of insect- pests and diseases in summer vegetables.  |
| 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. Application of 50 kg FYM is suggested for per pit.  |
| 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.  |

**(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. 58****Date: Tuesday, 23 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 34.6°C and 27.7°C, respectively. Average relative humidity was 90 percent at 0700 hrs and 65 percent at 1400 hrs. Soil temperature at 5 cm depth was 31.9°C at 0700 hrs and 35.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.6km/hr, 8.0 hours and 4.9mm, respectively. At the center, about 10.8 mm rainfall has been recorded

**Medium Range Weather Forecast**

**(24-28 July, 2019)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24****July** | **25****July** | **26****July** | **27****July** | **28****July** | **Remarks** |
| **Rainfall(mm)** | **100** | **50** | **30** | **5** | **5** | **Light to moderate rainfall during 24-25 July and heavy at isolated places,** **After 25th July light rainfall at isolated places** |
| **Max. T (°C)** | **35** | **33** | **33** | **34** | **34** | **-** |
| **Mini. T (°C)** | **25** | **24** | **23** | **23** | **24** |
| **Cloud cover (okta)** | **6** | **6** | **8** | **8** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Wind speed (kmph)** | **8** | **8** | **10** | **12** | **15** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| *Kharif* paddy | Transplanting | * In view of rainfall forecast, priority should be given for transplanting of rice in low and medium land areas. 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.
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**(A. Sattar)**

**(Nodal Officer)**