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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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **1** | **3** | **3** | **2** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **3** | **3** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **1** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **3** | **3** | **1** | **1** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **1** | **3** | **4** | **3** | **2** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
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* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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** |
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**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **2** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **1** | **3** | **4** | **3** | **2** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **2** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **1** | **3** | **2** | **3** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **1** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **1** | **3** | **3** | **3** | **2** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **2** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **1** | **3** | **4** | **4** | **0** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **3** | **3** | **1** | **2** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
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| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **2** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **1** | **4** | **4** | **1** | **2** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **1** | **2** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **2** | **4** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **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 26.8°C and 13.8°C, respectively. Average relative humidity was 87 percent at 0700 hrs and 64 percent at 1400 hrs. Soil temperature at 5 cm depth was 17.5°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.8km/hr, 6.2 hours and 3.1mm, respectively. At the center, about 12.2 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **2** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **1** | **4** | **2** | **3** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Sunflower | Sowing | Sowing of sunflower is advised upto 10 March. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed.  |
| Green gram/Black gram | Land preparation/Sowing | Land preparation/ sowing of green gram *(mung bean)* & black gram *(urd)* is advised taking advantage of rainfall that happened during the previous forecast period creating congenial moisture regime for germination. Application of 20 kg nitrogen, 45 kg phosphorus, 20kg potash and 20 kg sulphur/ha is advised during land preparation. *Pusa Vishal, Samrat, SML-668, HUM-16 and Sona* varieties for *mung bean* and *Pant Urd-19 and Pant Urd-31, Uttra and Navin* varietiesfor *urd* are recommended for sowing in North Bihar. Seed rate @20-25 kg/ha for small sized grain and 30-35 kg/ha for large sized grain with a spacing of 30x10 cm plant to plant is advised. Before sowing, seed should be treated with *rhizobium* culture. Farmers are advised to proper arrange the seeds from registered agency.  |
| Vegetables | Sowing | * Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation.
* Weeding is advised in 20-25 days old vegetables crop. Regular monitoring is advised for insect-pest and disease attack.
 |
| Fodder crop | Sowing | Sowing of *Sweet jowar* (multicut) and *Kohwa* varieties of jowar is advised. Cowpea is intercropping with jowar is suggested. *Affrican tall* variety of maize is also advised for sowing as fodder crop. |
| Sweet Potato | Sowing | Complete the sowing of sweet potato at the earliest. Application of 10-15 ton FYM, 30 kg Nitrogen, 40kg Phosphorus and 60 kg Potash per hectare is advised during land preparation. Cross-4 and Rajendra Sweet potato-35 varieties are suitable for sowing in North Bihar. |
| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(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. 17****Date: Friday, 1st March,2019** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(2-6th March, 2019)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **2****March** | **3****March** | **4****March** | **5****March** | **6****March** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **1** | **0** | **0** | **Light rainfall during 5-6 March** |
| **Max. T (°C)** | **23** | **23** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **13** | **14** |
| **Cloud cover (okta)** | **0** | **4** | **3** | **0** | **0** | **Partially cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **85** | **85** | **80** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall forecast around 5 March, farmers are advised to take precaution in different ongoing agricultural operations like spraying of pesticides/harvesting of matured crops. |
| Summer crop | - | In the previous forecasted period, there has been light to medium rainfall at many places in the North Bihar districts. This has brought moisture in the soil which may be utilized for sowing of green gram, black gram, summer maize, sunflower, vegetables such as okra, bottle gourd, sponge gourd, bitter gourd, cucumber and fodder crop such as sorghum, maize, bajra. Farmers are also advised to broadcast urea fertilizer in standing crops such as *rabi* maize, wheat, onion, and fodder crops. |
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| Onion | Early vegetative | Weeding is advised in onion crop. Regular monitoring is advised for thrips infestation.  |

**(A. Sattar)**

**(Nodal Officer)**