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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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5 km/hr, 5.9hours and 1.4 mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
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**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
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**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
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**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
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* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
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**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
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**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **23** | **23** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **9** | **8** | **7** | **6** | **8** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Potato | Vegetative | * Regular monitoring is advised for infestation of cut worm in potato crop. This is a highly destructive insect pest, which damages the potato crop. During night, larvae cut the plants at ground level at early stages of potato. During later phases of crop growth, the branches and leaves are cut and destroyed. After formation of the tuber, the larvae cut holes in the tuber and consume their contents. If infestation is observed in the crop field, spraying of Chlorpyriphos 20EC@2.5-3 ml per liter of water is advised.
* Give irrigation at an interval of 10-15 days.
 |
| Pea | Fruiting | Regular monitoring is advised for pod borer infestation in pea crop. The young greenish larvae bore into the pods. The developing seeds in the pods are completely/partially eaten up by larvae. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised when 15-20 % flowering is observed. Per hectare 15-20“T” shaped bird perches in and around crop field are to be installed for controlling insect population. Spraying of Novaluron 10 EC or Quinalfos 25 EC @1ml/ liter of water is suggested if pest population exceeds ETL. |
| Pigeon Pea | Flowering | Regular monitoring is advised for infestation of pod borers in pigeon pea, which reaches in flowering /pod formation stages. If infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Wheat |  Late tillering | * Give 2nd irrigation in the timely sown wheat crop, which is in 40-50 days stage. In view of prevailing higher temperature, farmers are advised to maintain proper soil moisture in the crop field.
* Give 3rd irrigation in the early sown wheat crop which is in 50-60 days stage.
* Farmers are advised to give irrigation in late sown wheat crop, which is in 21-25 days (Crown Root Initiation) stage. Application of 30 kg nitrogen per hectare is also advised after irrigation.
* Monitoring of termite infestation is advised in late sown wheat crop. If termite infestation is observed in the crop field, application of the mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is suggested in the evening hour and thereafter irrigation is advised.
 |
| Maize | Late vegetative  | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| *Rabi* onion | Transplanting | Complete the transplanting of onion at the earliest. Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals.  |
| Vegetables | - | * Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture.
* Monitoring is advised for infestation of fruit borer in tomato crop. In severe cases of infestation, spraying of Indoxacarb14.5 SC@1ml/2.5 liters of water or Spinosad 48EC@1ml/4 liters of water is advised.
 |

**(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. 5****Date:Tuesday,15th January, 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 23.5°C and 7.7°C, respectively. Average relative humidity was 83 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.6°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 1.5km/hr, 5.9hours and 1.4mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(16-20thJanuary, 2019)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **16****January** | **17****January** | **18****January** | **19****January** | **20****January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
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| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **50** | **50** | **45** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly**  | **Easterly** | **Westerly** | **Westerly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
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