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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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Wheat | Tillering | * Farmers are advised to give 2nd irrigation in the crop, which is in 45-50 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. * Application of mixture of 20 kg sand with Chlorpyriphos 20EC@2 liters/hectare is advised in the evening hour if symptoms of termite appear in wheat crop and thereafter irrigation is suggested. |
| Maize | Late vegetative phase | Farmers are advised to give irrigation in 50-55 days old maize crop. Application of 50 kg nitrogen per hectare is also advised. |
| Potato | Vegetative | Give irrigation at an interval of 10-15 days. Regular monitoring is advised for infestation of insect-pest and diseases specially late blight. |
| Pea | Fruiting | * Spraying of 2 % urea is advised for proper growth of pods in pea crop. Monitoring of pod borer insect pest is also advised. * Regular monitoring is advised against infestation of powdery mildew disease in early sown pea crop. Farmers are advised to spray Karathane @ 1 ml per litre of water or Sulfex @ 3gm per litre of water, if disease infestation is observed. |
| Garlic | Vegetative | Weeding is advised in garlic crop. Give irrigation as per status of soil moisture. Protect the crop against attack of insect-pest and disease. |
| *Rabi* onion | Transplanting | * Transplanting should be done with a spacing of 15 cm line to line and 10 cm plant to plant. * Weeding is advised in 20-25 days old transplanted onion crop. Give light irrigation at short intervals. |
| Gram | Flowering/  Fruiting | Regular monitoring is advised for infestation of pod borer in the crop. The small larva eat up the green portion of the plant, whereas the larger larva eat up the floral parts, flowers, leaves and pods. The larva could be seen stuck with circular hole made with pods. If infestation occurs, installation of Pheromone trap @ 3-4 traps per acre is advised, when 15-20 % flowering is observed. “T” shaped bird perches in and around crop field are to be installed for controlling insect population. |
| Pigeon Pea | Flowering | Monitoring is advised for infestation of pod borer insects in pigeon pea crop, which is in flowering stage. If pest infestation is found, spraying of Cartap hydrochloride @ 1.5ml/L of water is advised. |
| Vegetables | - | Intercultural operation is advised in vegetables. Give irrigation as per status of soil moisture. Protect the crops from diseases and insect- pests. |
| Animal care | - | Special care should be given to milch animal. Farmers are advised to give 50 gram salt and 50-100 gm mineral mixture supplicated with feeds prepared from grains, and green & dry hay to keep them healthy and strong. |

**(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. 4**  **Date:Friday,11th 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 22.4°C and 7.5°C, respectively. Average relative humidity was 87 percent at 0700 hrs. and 52 percent at 1400 hrs. Soil temperature at 5 cm depth was 10.3°C at 0700 hrs. and 20.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.9km/hr, 5.4hours and 2.1mm, respectively. Dry weather prevailed during the previous forecasting period. Early morning fog was observed.

**Medium Range Weather Forecast**

**(12-16th January, 2019)**

**(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12**  **January** | **13**  **January** | **14**  **January** | **15**  **January** | **16**  **January** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **21** | **22** | **22** | **23** | **23** | **-** |
| **Mini. T (°C)** | **7** | **8** | **9** | **8** | **7** |
| **Cloud cover (okta)** | **0** | **0** | **0** | **0** | **0** | **Mainly clear sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **95** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **45** | **50** | **50** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly/ Easterly** |

**Advisory for the farmers**

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