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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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **0** | **2** | **0** | **1** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **0** | **1** | **0** | **0** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **2** | **2** | **2** | **3** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **1** | **2** | **2** | **3** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **1** | **1** | **0** | **1** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **0** | **2** | **1** | **1** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **0** | **1** | **0** | **0** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **1** | **2** | **1** | **2** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **1** | **2** | **1** | **2** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **2** | **2** | **1** | **2** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **0** | **2** | **2** | **3** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(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. 14****Date:Tuesday,19th February,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 23.6°C and 12.0°C, respectively. Average relative humidity was 84 percent at 0700 hrs and 58 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.5°C at 0700 hrs and 23.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2km/hr, 5.5 hours and 2.3mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **0** | **2** | **0** | **1** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Mustard | Grain formation/Harvesting | * In view of dry weather, farmers are advised to harvest matured crop of early sown mustard.
* Monitoring is advised for aphid infestation in the late sown mustard crop. Both the nymphs and adults of aphid suck cell-sap from leaves, stems, inflorescence or developing pods. Due to very high population of the pest, the vitality of plants is greatly reduced. The leaves acquire a curly appearance, the flowers fail to form pods and the developing pods do not produce healthy seeds. If insect population is observed above ETL, spraying of Dimethoate 30EC @ 1.0 ml/litre of water is advised in clear days.
 |
| Potato | Tuberisation/Maturity | In view of dry weather, farmers are advised to dig out potato tubers from the field which is in matured stage. It is advised to cut the upper vegetative parts of the crop for seed purpose. Stop the irrigation in the crop 15 days before of harvesting.  |
| Onion | Vegetative | * Intercultural operation is advised in onion. Provide light and frequent irrigation at an interval of 10-12 days as per requirement.
* Regular monitoring is advised for thrips infestation in onion. The adults as well as nymphs damage the crop. The leaves of damaged plant become curled, wrinkled and gradually dry up. The damaged plants do not form bulbs. If the insect population is above ETL, spraying of Profenofos@1ml/L or Imidacloprid @1ml/4 liter of water is advised.
 |
| Wheat  | Milking stage | Farmers are advised to maintain proper soil moisture in wheat crop which is in grain forming/milking stage. |
| *Rabi* Maize | Tassel/ Silking  | Ensure proper soil moisture in early sown *rabi* maize, which is in tassel/silking stage. |
| Summer Maize | Land preparation/Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed.  |
| Vegetables | Land preparation/sowing | * Land preparation/Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. To protect the vegetable crops from cutworm attack, application of mixture of 20-30kg sand with Chlorpyriphos 20EC@2 liters/acre is advised during land preparation. Ensure proper soil moisture before sowing.
* Monitoring is advised for aphid infestation in standing vegetables crop. If insect population is above ETL, spraying of Imidacloprid @ 1ml/3 liters of water is advised.
 |
| Fodder crop  | Sowing | Sowing of fodder crop such as sorghum, maize, bajra is advised. Ensure proper soil moisture for good germination. |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
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**Medium Range Weather Forecast**

**(20-24 February, 2019)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20****February** | **21****February** | **22****February** | **23****February** | **24****February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **24** | **25** | **25** | **26** | **26** | **-** |
| **Mini. T (°C)** | **10** | **11** | **11** | **12** | **12** |
| **Cloud cover (okta)** | **0** | **3** | **3** | **2** | **2** | **cloudy sky**  |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **45** | **45** | **50** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
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**(A. Sattar)**

**(Nodal Officer)**