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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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **3** | **5** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **6** | **6** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **10** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **6** | **7** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **15** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **5** | **3** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **10** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **6** | **7** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **10** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **2** | **4** | **6** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
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| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **10** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **3** | **3** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **15** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **55** | **55** | **55** | **65** | **65** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **15** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **2** | **3** | **6** | **6** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **10** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **4** | **4** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
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| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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. |
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| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **15** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **4** | **5** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **15** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **4** | **5** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **10** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **0** | **3** | **3** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
| Vegetables | Sowing | Sowing of summer vegetable such as okra, pumpkin, cucumber, sponge gourd ridge guard, bitter guard is advised. For healthy production of vegetables, application of 15-20 ton FYM is advised during land preparation. 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. |
| Green gram/  Black gram | Land preparation | Land preparation is advised for sowing of Green gram (*Mung bean*) & Black gram (*Urd*). *Pusa Vishal, Samrat, SML-668, Sona, HUM-16* varieties for *Mung bean* and *Pant Urd-19, Pant Urd-31, Uttra and Navin* varietiesfor Urd are recommended for sowing in North Bihar. |
| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(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. 15**  **Date:Friday,22nd 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 27.3°C and 11.7°C, respectively. Average relative humidity was 80 percent at 0700 hrs and 53 percent at 1400 hrs. Soil temperature at 5 cm depth was 15.6°C at 0700 hrs and 26.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 2.1km/hr, 5.9 hours and 2.8mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(23-27th February, 2019)**

**(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **23**  **February** | **24**  **February** | **25**  **February** | **26**  **February** | **27**  **February** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **5** | **20** | **Chances of rainfall during 26-27 February** |
| **Max. T (°C)** | **28** | **28** | **27** | **25** | **25** | **-** |
| **Mini. T (°C)** | **14** | **14** | **13** | **12** | **11** |
| **Cloud cover (okta)** | **1** | **4** | **3** | **7** | **8** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **95** | **95** | **95** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **55** | **55** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Westerly/Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| In view of rainfall during 26-27 February, farmers are advised to postpone/skip irrigation in standing crops. Farmers are also advised to take precaution in different ongoing agricultural operations like spraying of pesticides in the crop field. | | |
| Summer Maize | Sowing | Sowing of summer maize is advised. Application of 10-15 ton FYM, 40 kg Nitrogen, 40kg Phosphorus and 30 kg Potash per hectare is advised during land preparation. *Suwan, Deevki, Ganga-11, Shaktiman-1,2,3,4 and Shaktiman-5* varieties are recommended for sowing in North Bihar. Seed rate@20kg/ha is advised. Seed should be treated with *Captaf or Thiram* @ 2.5 gram /kg of seed. |
| Sunflower | Sowing | Sowing of sunflower is advised. *Mordane, Surya, CO-1 and Pairadevik* and *DRSF-108* are composite varieties and *BSH-1, KBSH-1, MSFH-1, MSFH-8, MSFH-17* and *KBSH-44* varieties are hybrid, which are recommended for sowing in North Bihar. Application of 10-15 ton FYM, 30-40 kg Nitrogen, 80-90kg Phosphorus and 40 kg Potash per hectare is advised during land preparation. Seed rate@ 5.0 kg/ha for hybrid and 8.0 kg/ha for composite varieties is advised. Before sowing, seed should be treated with *Thiram* or C*aptaf*@2gm/kg of seed. |
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| Mustard | Grain formation/  Harvesting | * In view of rainfall during 26-27 Feb, farmers are advised to take utmost care in the harvesting of matured crop of mustard. Keep the harvested produce in the safe place to prevent it from damage. * 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 | 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. |
| Onion | Vegetative | 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. |

**(A. Sattar)**

**(Nodal Officer)**