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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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **1** | **2** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,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 35.5°C and 20.3°C, respectively. Average relative humidity was 65 percent at 0700 hrs and 38 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.3°C at 0700 hrs and 36.8°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.6km/hr, 9.1hours and 7.4mm, respectively. Dry weather prevailed during the previous forecasting period.

**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
| Wheat/ pigeon pea | Harvesting | Harvesting and threshing of wheat crop is advised as priority base. |
| Late sown *rabi* maize | Reproductive stage | Give irrigation in rabi maize which is in reproductive stage. Lack of proper soil moisture in this stage results poor yield. |
| Spring maize | Knee height | * Give irrigation in spring maize which is in knee height stage. * Monitoring is advised for infestation of maize stem borer. The young caterpillars feed on the epidermal layer of leaf sheath and remain there in the early stages of growth. Later they bore in to central shoots resulting in the drying up of the growing point and formation of dead heart in young maize plants. For management, spraying of Chlorpyriphos 20 EC @20.5 ml/liter of water is advised. Farmers are also advised to maintain proper soil moisture for healthy growth of crop. |
| Green gram/  Black gram | Early vegetative | * Weeding is advised in late sown green gram and black gram crop. * Monitoring is advised against attack of hairy caterpillars in the crop. The caterpillars which are profusely covered with long greyish hairs eat foliage, soft portion of stem and branches. In severe cases of infestation, the plants may be completely denuded of leaves. For management of insect-pest, spraying of Methyl parathion 50[EC@2.0ml/liter](mailto:EC@2.0ml/liter) or Chlorpyriphos 20 [EC@2.5ml/liter](mailto:EC@2.5ml/liter) of water is advised. |
| Mango | Small sized fruits | * Monitoring is advised for attack of mango mealy bug insect-pest. If population of bugs seen at the plant, spraying of Dimethoate 30EC @ 1.0ml/ liter of water is advised. * Spraying of Imidacloprid 17.8 SL@1ml/2 liters of water and Hexaconazole@1gram/2 liters of water or Dainocap 46 EC@1 ml/liter of water is advised. This will help against mango hopper infestation and powdery mildew disease. Application of plant growth regulator like Planofix (Napthyl Acetic Acid-NAA) @1ml/3 liters of water is advised against fruit drop. |
| Lady’s finger  and Cucurbitaceous crop | Flowering/  Fruiting | * Give irrigation in summer vegetables such as lady’s finger, pumpkin, cucumber, sponge gourd, bottle gourd. Weeding is also advised. * Monitoring is advised for infestation of fruit and shoot borer in Lady’s finger. If infestation found, spraying of Malathion 50EC@ 1.0ml/liter or Dimethoate [30EC@1.5](mailto:30EC@1.5) ml/liter of water is advised. * Monitoring is advised for infestation of fruit fly in cucurbitaceous crop. If infestation of is found, spraying of Dimethoate 30 EC @ 2 ml+10 gram sugar /liter of water is advised. |
| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(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. 32**  **Date: Tuesday, 23April,2019** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(24-28 April, 2019)**

**(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **24**  **April** | **25**  **April** | **26**  **April** | **27**  **April** | **28**  **April** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Dry weather** |
| **Max. T (°C)** | **34** | **35** | **36** | **36** | **37** | **-** |
| **Mini. T (°C)** | **22** | **23** | **24** | **24** | **25** |
| **Cloud cover (okta)** | **2** | **2** | **2** | **2** | **2** | **Light cloudy sky** |
| **Max Relative Humidity (%)** | **75** | **75** | **75** | **70** | **70** |  |
| **Min Relative Humidity (%)** | **50** | **50** | **40** | **40** | **40** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| * In view of dry and hot weather in forecast period, farmers are advised to irrigate standing crops such as maize, onion, sunflower, vegetables, Mango and litchi orchards and fodder crops in the evening hour. * Farmers are also advised to do deep ploughing of their fallow lands to reduce the abundance of eggs, larva, pupa of insect pests, diseases and weeds as high temperature and direct sunlight would be helpful against the insect pests. | | |
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| Onion | Bulb  formation | * Give irrigation at short intervals in onion crop. Weeding is also advised. * Present dry and hot weather are suitable for thrips population in onion crop. Hence, monitoring is advised. If insect population exceeds ETL, spraying of Profenofos@1ml/L or Imidacloprid@1ml/4 liter of water is advised. Add sticker 1ml/liter of water for better result. |

**(A. Sattar)**

**(Nodal Officer)**