|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **20** | **10** | **Light to medium** |
| **Max. T (°C)** | **35** | **34** | **33** | **32** | **34** | **Maximum temperature will remain between 32-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **27** | **27** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **7** | **7** | **8** | **7** | **4** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Office)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **34** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 34-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/ Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **5** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **33** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **33** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **34** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 34-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **15** | **10** | **5** | **10** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **34** | **34** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **27** | **27** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **20** | **10** | **Light to medium** |
| **Max. T (°C)** | **35** | **33** | **34** | **34** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **27** | **27** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **7** | **4** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **35** | **33** | **34** | **34** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **27** | **27** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **7** | **4** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **34** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 34-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **34** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 34-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterl** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **10** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **35** | **33** | **34** | **34** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **27** | **27** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **7** | **4** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **5** | **5** | **10** | **Light to medium** |
| **Max. T (°C)** | **35** | **33** | **34** | **32** | **34** | **Maximum temperature will remain between 32-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **27** | **27** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **7** | **4** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **GRAMIN KRISHI MAUSAM SEWA (GKMS)**  **AGRO-METEOROLOGY DIVISION**  **Dr. Rajendra Prasad Central Agricultural University, Pusa**  **Samastipur, Bihar -848 125** | | |
| **Bulletin No. 66**  **Date: Tuesday, 11th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** | **Phone No : 06274-240266** |

**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.7°C and 26.1°C respectively. Average relative humidity was 87 percent at 0700 hrs. and 78 percent at 1400 hrs. Soil temperature at 5 cm depth was 29.3°C at 0700 hrs. and 32.3°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0 km/hr, 6.5 hours and 3.2 mm respectively. At the center, about 6.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(12 -16th September, 2018)**

**(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **12th**  **September** | **13th**  **September** | **14th**  **September** | **15th**  **September** | **16th**  **September** | **Remarks** |
| **Rainfall(mm)** | **10** | **10** | **5** | **5** | **5** | **Light to medium** |
| **Max. T (°C)** | **33** | **34** | **35** | **35** | **34** | **Maximum temperature will remain between 33-35°C and the minimum between**  **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **26** | **26** | **27** |
| **Cloud cover (okta)** | **8** | **7** | **4** | **2** | **0** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **5** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly/** | **Easterly/** | **Easterly/** | **Easterly/** | **Easterly/** | **Easterly/** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insect hatching from the eggs, laid in the rind of the soft fruits, bore in to fruits and feed on the internal contents (pulp). The infested fruits do not attain the usual size and even drop from creepers. The attacked fruits usually rot due to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps great extent in the suppression of this pest. In case of heavy damage, spraying of 2.0 liter malathione 50 EC and 1.0 kg gur mix with 800 liter water is advised for one hectare crop. |
| Rice | Panicle initiation | In view of rainfall forecast, farmers are advised to apply 30 kg nitrogen/hectare in early transplanted paddy crop which is in panicle initiation stage. |
| Vegetables nursery/crop | - | * Present weather condition is conducive for damping off disease in vegetables nursery. This soil borne fungal disease affects seeds and new seedlings. Rotting of stem and rotten tissues near the soil surface is observed in nursery. In most of the cases, seeds will germinate into healthy plants, but within a few days of sprouting, it turns flashy; leading it to fall on the ground and die off subsequently. The disease infects the plants in patches in a crop field and on many occasions, entire nursery may get damaged. For prevention, soil treatment with *Trichoderma* and proper seed treatment is advised before sowing. Avoid dense planting and sowing should be done at shallow depth. Provision of proper drainage is advised in the nursery field. In severe case of infestation, spraying of copper oxychloride@2.5 gram/liter of water is advised in nursery. * Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery/crops. These insect-pests work as vectors to transmit diseases from diseased plants to healthy plants in the nursery. For prevention, spraying of Imidaclorprid @ 0.3ml/liter of water is advised in clear day condition. |
| September Pigeon pea  *(Arhar)* | Sowing | Complete the sowing of pigeon pea up to 15 September in upland area. Regular monitoring is advised in July-sown pigeon pea crop. Farmers are advised to take precautionary measures, if infestation of insect pest /disease is observed. |
| Cauliflower | Transplanting | Transplanting of mid duration varieties of cauliflower such as *Pusa aghani, Pusi, Patna men, Pusa synthetic-1, Pusa shubhra, Pusa sarad, Pusa medhna, Kaasi kuwari, and early snowball* is advised. Monitoring of leaf eating caterpillar is advised in early sown cauliflower*.* If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised to protect the crop. |
| Cabbage | Nursery sowing | Nursery sowing of early varieties of cabbage is advised. *Pride of India, Golden Acre, Pusa mukta, Pusa agate, and early drum head* varieties of cabbage are recommended for sowing under North Bihar agro climatic condition. |

**(A. Sattar)**

**(Nodal Officer)**