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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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

**(Begusarai)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **2** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **35** | **35** | **35** | **35** | **36** | **Maximum temperature will remain between 35-36°C and the minimum between** **26-27°C.** |
| **Mini. T (°C)** | **26** | **27** | **26** | **26** | **26** |
| **Cloud cover (okta)** | **7** | **7** | **6** | **4** | **4** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **10** | **5** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

**(A. Sattar)**

**(Nodal Office)**

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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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Darbhanga)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **10** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **34** | **33** | **34** | **35** | **Maximum temperature will remain between 33-35°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **6** | **4** | **1** | **3** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **15** | **5** | **10** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(A. Sattar)**

**(Nodal Officer**

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**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **10** | **5** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **35** | **35** | **Maximum temperature will remain between 33-35°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(A. Sattar)**

**(Nodal Officer)**

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**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **10** | **2** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **35** | **35** | **Maximum temperature will remain between 33-35°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(A. Sattar)**

**(Nodal Officer)**

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**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **10** | **5** | **10** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **32** | **33** | **34** | **34** | **Maximum temperature will remain between 32-34°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
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| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(A. Sattar)**

**(Nodal Officer)**

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| **Bulletin No. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **2** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **34** | **34** | **Maximum temperature will remain between 33-34°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **25** | **26** | **26** | **26** |
| **Cloud cover (okta)** | **5** | **6** | **3** | **0** | **3** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **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)**

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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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **10** | **0** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **34** | **35** | **36** | **35** | **36** | **Maximum temperature will remain between 34-36°C and the minimum between** **26-27°C.** |
| **Mini. T (°C)** | **26** | **26** | **27** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **7** | **4** | **2** | **4** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **2** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **34** | **35** | **35** | **35** | **35** | **Maximum temperature will remain between 34-35°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **26** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **2** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **34** | **34** | **Maximum temperature will remain between 33-34°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **4** | **5** | **2** | **0** | **2** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **10** | **5** | **10** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **35** | **35** | **Maximum temperature will remain between 33-34°C and the minimum between** **25-27°C.** |
| **Mini. T (°C)** | **25** | **27** | **26** | **26** | **25** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Easterly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(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. 67****Date: Friday, 14th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  **Phone No : 06274-240266** |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Siwan)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **35** | **35** | **Maximum temperature will remain between 33-35°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **26** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(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. 67****Date: Friday, 14th 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 32.5°C and 25.4°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 74 percent at 1400 hrs. Soil temperature at 5 cm depth was 27.8°C at 0700 hrs. and 32.6°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.2 km/hr, 7.4 hours and 4.9 mm respectively. At the center, about 1.0 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **34** | **35** | **36** | **35** | **35** | **Maximum temperature will remain between 34-36°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **26** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
| Ladys finger, green gram and black gram | Vegetative | Regular monitoring is advised for Yellow Vein Mosaic Virus (YMV) disease in ladys finger, green gram and black gram. The disease is caused by white fly, which works as vector to transmit diseases from the diseased to healthy plants. If infestation (diseased plant) seen in the crop field, spraying of Imidacloprid17.8%SL@ 0.3ml/litre of water is advised.  |
| Cucurbitaceous crop | Fruiting | Present weather is suitable for attack of fruit fly in cucurbitaceous crop. The maggot of insects upon hatching from eggs, bore into inner core of the tender fruits and feed on the internal contents (pulp). The infested fruits fail to attain the usual size and on many occasions, it tends to drop from creepers. The infested fruits usually do rot owing to fungal and bacterial infection. Regular removal and destruction or burying deep of infested fruits in the soil helps to a great extent in suppressing the pest. In case of heavy damage, spraying of 2.0 liter Malathione 50 EC and 1.0 kg jaggary mixed with 800 liters of water is advised for one hectare crop. |
| 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 for those farmers whose seedlings are ready.
* Monitoring of Diamond back moth (DBM) in early transplanted cauliflower is advised*.* The larva of insect-pest feed on leaves and make bite holes, causes excessive defoliation mostly on the growing parts. Under severe damage, only network of veins remains left and head formation is rarely observed.If infestation is observed, spraying of Spinosad 1ml/4litres of water is advised.
 |
| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(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. 67****Date: Friday, 14th September, 2018** | **F:\15349550_1863725520538190_1704492238980604982_n.jpg** |  **Phone No : 06274-240266** |

**Weather during the previous forecast period**

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**Medium Range Weather Forecast**

**(15 -19th September, 2018)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **15th****September** | **16th****September** | **17th****September** | **18th****September** | **19th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **10** | **5** | **0** | **0** | **Scattered light rainfall; mostly dry condition** |
| **Max. T (°C)** | **33** | **33** | **34** | **35** | **35** | **Maximum temperature will remain between 33-35°C and the minimum between** **25-26°C.** |
| **Mini. T (°C)** | **25** | **26** | **25** | **26** | **26** |
| **Cloud cover (okta)** | **6** | **4** | **4** | **0** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **90** | **80** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **60** | **60** | **60** | **50** | **50** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **5** |  |
| **Wind direction(deg)** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| Fallow land | - | During rainy season, there is an abundance of grasses and sedges in the bunds of the field, which tends to enhance the abundance of insect and pests, which lay eggs in the grass. Such condition gives rise to the incidence of pests and diseases in the standing crops. For control of such grasses, application of Glyphosate 41% SL @10-15 ml/liter of clean water is advised under sunny day condition. It is advised that application of this herbicide should not be made in standing crops. Cleaning of spraying machines is also advised after the application of this herbicide. |
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| Rice | Vegetative to reproduction | Regular monitoring of brown plant hopper (BPH) in paddy crop is advised. This mosquito type insect-pest may be seen at the basal portion of the plant in the middle of the crop field. The adults and nymphs suck the sap; resulting in reddening of leaves in the beginning and subsequently drying of leaves. In case of heavy infestation, the rice leaves turn brown and plants fail to produce ears. Reduction in the tillering of plants is also seen in the field. To protect the crop, spraying of Imidacloprid 17.8 % SC @ 1.0 ml / 3 liter of water is advised. |
| Chilli, brinjal and tomato nursery | - | Monitoring of sucking insect-pests such as white fly, leaf hopper and aphid is advised in vegetables nursery *i.e.* chilli, brinjal and tomato. These insect-pests works as vector to transmit diseases from the diseased to healthy plants in the nursery. For prevention, spraying of Imidaclorprid17.8 %SL @ 0.3ml/liter of water is advised. |

 **(A. Sattar)**

**(Nodal Officer)**