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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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 6.1 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

**(Begusarai)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **5** | **10** | **10** | **20** | **20** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

**(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Darbhanga)**

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| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(A. Sattar)**

**(Nodal Officer**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa** **Samastipur, Bihar -848 125** |
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**Weather during the previous forecast period**

According to meteorological data recorded at Agro meteorological Observatory, Pusa (Bihar), average maximum and minimum temperature were 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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.
 |
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* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
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* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
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 **(A. Sattar)**

**(Nodal Officer)**

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**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
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* 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.
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| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
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 |
| 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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**

**(8 -12th September, 2018)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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 33.6°C and 26.0°C respectively. Average relative humidity was 90 percent at 0700 hrs. and 81 percent at 1400 hrs. Soil temperature at 5 cm depth was 28.7°C at 0700 hrs. and 33.5°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 4.1 km/hr, 5.2 hours and 3.6 mm respectively. At the center, about 18.8 mm rainfall has been recorded.

**Medium Range Weather Forecast**

**(8 -12th September, 2018)**

 **(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **25** | **25** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
* In view of rainfall in the forecast period, nursery should be covered with net at a height of 6-7 feet above the ground for protection against scorching sun and rainfall. It saves the seedlings from mortality.
* 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. During land preparation, application of 20kg/ha Nitrogen, 45kg/ha Phosphorus, 20 kg/ha Potash and 20 kg sulphur/ha is advised. Seeds should be treated with Thiram/Capton @2.5gm/kg of seed.
* 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.
 |
| Paddy | Vegetative | Monitoring of *khaira* disease is advised in late transplanted paddy. The disease is caused by zinc deficiency. If symptoms occur, spraying of zinc sulphate@5.0 kg mixed with lime@2.5 kg in 500 liters of water is advised for one hectare cropped area. |
| 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. During land preparation, application of borax @10-15kg/hectare and sodium molibdate or ammonium molibdate@1 kg/hectare is advised in boron and molybdenum deficient land, respectively.
* 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.  |
| Radish  | Sowing | Early sowing of radish is advised. *Pusa chetki, Pusa desi, Jounpuri, Pusa himani, Japani safed, Pusa rashmi, Punjab safed and Arka nishant varieties of radish* are advised for sowing in North Bihar region. The planting distance should be maintained at 25X10 cm. Seed rate @4-5 kg/hectare is suggested. |

 **(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. 65****Date: Friday, 7th 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**

**(8 -12th September, 2018)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **8th****September** | **9th****September** | **10th****September** | **11th****September** | **12th****September** | **Remarks** |
| **Rainfall(mm)** | **15** | **20** | **20** | **30** | **30** | **Light to medium** |
| **Max. T (°C)** | **33** | **33** | **33** | **32** | **31** | **Maximum temperature will remain between 31-33°C and the minimum between** **24-26°C.** |
| **Mini. T (°C)** | **26** | **25** | **25** | **24** | **24** |
| **Cloud cover (okta)** | **6** | **7** | **8** | **8** | **8** | **Mainly cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **95** | **95** | **95** | **100** |  |
| **Min Relative Humidity (%)** | **60** | **65** | **70** | **75** | **75** |  |
| **Wind speed (kmph)** | **10** | **5** | **5** | **5** | **15** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases**  | **Advisory (Based on weather forecast)** |
| 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.
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 **(A. Sattar)**

**(Nodal Officer)**