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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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 20 | 21 | 21 | 22 | 21 | Maximum temperature will remain between 17-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 11 | 11 | 11 | 12 | 11 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 95 | 95 | 95 | 95 | 95 |  |
| Min Relative Humidity (%) | 65 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 17 | 19 | 19 | 20 | 21 | Maximum temperature will remain between 17-20°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 11 | 11 | 10 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 95 | 95 | 95 | 95 | 95 |  |
| Min Relative Humidity (%) | 65 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 22 | 23 | 23 | 23 | 23 | Maximum temperature will remain between 17-20°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 11 | 11 | 10 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 22 | 23 | 23 | 23 | 23 | Maximum temperature will remain between 17-20°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 11 | 11 | 10 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 20 | 21 | 21 | 21 | 21 | Maximum temperature will remain between 17-20°C and the minimum between 9-11°C. |
| Mini. T (°C) | 11 | 11 | 12 | 12 | 11 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 20 | 21 | 21 | 21 | 21 | Maximum temperature will remain between 17-20°C and the minimum between 9-11°C. |
| Mini. T (°C) | 11 | 11 | 12 | 12 | 11 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 21 | 21 | 22 | 22 | 21 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 11 | 12 | 12 | 11 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 95 | 95 | 95 | 95 | 95 |  |
| Min Relative Humidity (%) | 65 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(A. Sattar)**

**(Nodal Officer)**

|  |  |  |
| --- | --- | --- |
| **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 23 | 23 | 24 | 24 | 23 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 10 | 11 | 11 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 21 | 21 | 21 | 22 | 21 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 10 | 11 | 11 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Sitamadhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 20 | 21 | 21 | 21 | 21 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 11 | 11 | 12 | 12 | 11 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 3.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 22 | 23 | 23 | 23 | 23 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 11 | 11 | 10 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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. 98**  **Date: Tuesday, 19 December, 2017** | **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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 2.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 21 | 21 | 22 | 22 | 21 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 11 | 12 | 12 | 11 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 95 | 95 | 95 | 95 | 95 |  |
| Min Relative Humidity (%) | 65 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(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 20.7°C and 11.2°C respectively. Average relative humidity was 91 percent at 0700 hrs. and 72 percent at 1400 hrs. Soil temperature at 5 cm depth was 14.7°C at 0700 hrs. and 20.1°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 3.1km/hr, 3.4 hours and 1.6 mm respectively. Dry weather prevailed during this period. Light morning fog persisted upto 7-8 AM across north Bihar region.

**Medium Range Weather Forecast**

**(20 - 24 December, 2017)**

**(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **20th**  **December** | **21st**  **December** | **22nd**  **December** | **23rd**  **December** | **24th**  **December** | **Remarks** |
| Rainfall(mm) | 0 | 0 | 0 | 0 | 0 | Dry Weather |
| Max. T (°C) | 22 | 23 | 23 | 23 | 23 | Maximum temperature will remain between 18-22°C and the minimum between 9-11°C. |
| Mini. T (°C) | 10 | 11 | 11 | 10 | 10 |
| Cloud cover (okta) | 0 | 0 | 0 | 0 | 0 | Morning fog and cold wave condition for the next 2-3 days |
| Max Relative Humidity (%) | 100 | 100 | 100 | 95 | 95 |  |
| Min Relative Humidity (%) | 60 | 60 | 60 | 65 | 65 |  |
| Wind speed (kmph) | 4 | 4 | 6 | 6 | 4 |  |
| Wind direction(deg) | westerly | westerly | westerly | westerly | westerly | Easterly/ westerly |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| Crops | Phenophases | Advisory (Based on weather forecast) |
| Wheat | Sowing | Farmers are advised to give irrigation to early sown wheat crop, which reaches Crown Root Initiation (CRI) stage (21-25 days after sowing). Application of 30kg nitrogen per hectare is advised 2-3 days after irrigation. |
| Rabi onion | Sowing | Planting of onion is advised. Application of 20 ton/ha FYM, 60kg nitrogen, 80 kg phosphorus, 80 kg potash and 40kg sulphur is advised during land preparation. |
| Vegetables | - | Weeding is advised in vegetables. Provide light irrigation in vegetable crops such as cauliflower, cabbage, tomato, pea, chilli, brinjal etc. |
| Animals | - | * In view of low temperature and cold, farmers are advised to take proper care of milch animals in terms of shelter and feeds. To maintain milk production, animals should be given medicines such as Fatomax and M-Power and also give them a mixture of minerals and vitamins @50 gm per animal every day. Give probiotics to the animals to maintain proper digestion. Ample amount of fresh and clean water should also be given to the animals. * Do not take the animals outside the shelter before 9 am. Under the prevailing weather condition, animals may be affected with cold. The symptoms of cold attack in the animals are watery nose and eyes, erect body hairs etc. For remedial measures, apply the vapour of tarpin oil over the face. Give them balanced diet of protein, minerals, vitamins and fat. |

**(A. Sattar)**

**(Nodal Officer)**