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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. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Begusarai)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **31** | **32** | **32** | **32** | **31** | **-** |
| **Mini. T (°C)** | **22** | **22** | **22** | **21** | **21** |
| **Cloud cover (okta)** | **7** | **4** | **4** | **2** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **65** | **65** | **60** | **60** |  |
| **Wind speed (kmph)** | **20** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Easterly** | **Easterly** | **Easterly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

**(A. Sattar)**

**(Nodal Office)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Darbhanga)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **30** | **27** | **29** | **29** | **30** | **-** |
| **Mini. T (°C)** | **21** | **20** | **20** | **20** | **20** |
| **Cloud cover (okta)** | **5** | **0** | **0** | **0** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **902** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

 **(East Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **10** | **5** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **32** | **31** | **31** | **31** | **31** | **-** |
| **Mini. T (°C)** | **21** | **21** | **20** | **20** | **20** |
| **Cloud cover (okta)** | **5** | **0** | **0** | **0** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **902** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Gopalganj)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **29** | **29** | **31** | **31** | **31** | **-** |
| **Mini. T (°C)** | **22** | **23** | **21** | **21** | **22** |
| **Cloud cover (okta)** | **5** | **3** | **3** | **1** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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**

**(13- 17 October, 2018)**

 **(Madhubani)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **29** | **29** | **31** | **31** | **31** | **-** |
| **Mini. T (°C)** | **22** | **23** | **21** | **21** | **22** |
| **Cloud cover (okta)** | **5** | **3** | **3** | **1** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

**(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Muzaffarpur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **31** | **32** | **32** | **32** | **31** | **-** |
| **Mini. T (°C)** | **22** | **22** | **22** | **21** | **21** |
| **Cloud cover (okta)** | **7** | **4** | **4** | **2** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **65** | **65** | **60** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

 **(Samastipur)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **31** | **32** | **32** | **32** | **31** | **-** |
| **Mini. T (°C)** | **22** | **22** | **22** | **21** | **21** |
| **Cloud cover (okta)** | **5** | **2** | **2** | **2** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **95** |  |
| **Min Relative Humidity (%)** | **75** | **65** | **65** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** | **Easterly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

 **(Saran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **31** | **31** | **32** | **32** | **31** | **-** |
| **Mini. T (°C)** | **22** | **22** | **22** | **21** | **21** |
| **Cloud cover (okta)** | **5** | **2** | **2** | **2** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **85** | **85** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **65** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Shivhar)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **29** | **29** | **31** | **31** | **31** | **-** |
| **Mini. T (°C)** | **22** | **23** | **21** | **21** | **22** |
| **Cloud cover (okta)** | **5** | **3** | **3** | **1** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

 **(Sitamarhi)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **30** | **30** | **31** | **31** | **31** | **-** |
| **Mini. T (°C)** | **22** | **23** | **21** | **21** | **22** |
| **Cloud cover (okta)** | **5** | **3** | **3** | **1** | **1** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **90** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Easterly** | **Easterly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Siwan)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **31** | **31** | **32** | **32** | **31** | **-** |
| **Mini. T (°C)** | **22** | **22** | **22** | **21** | **21** |
| **Cloud cover (okta)** | **5** | **2** | **2** | **2** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **85** | **85** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **65** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

**(Vaishali)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **5** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **30** | **29** | **30** | **30** | **29** | **-** |
| **Mini. T (°C)** | **22** | **22** | **22** | **21** | **21** |
| **Cloud cover (okta)** | **5** | **2** | **2** | **2** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **90** | **85** | **85** | **80** | **80** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **65** | **60** | **60** |  |
| **Wind speed (kmph)** | **15** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Easterly** | **Easterly** | **Westerly** | **Westerly** | **Westerly** | **Easterly/Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**

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| **GRAMIN KRISHI MAUSAM SEWA (GKMS)****AGRO-METEOROLOGY DIVISION****Dr. Rajendra Prasad Central Agricultural University, Pusa****Samastipur, Bihar -848 125** |
| **Bulletin No. 74****Date: Friday, 12th October, 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 31.0°C and 22.0°C respectively. Average relative humidity was 88 percent at 0700 hrs. and 68 percent at 1400 hrs. Soil temperature at 5 cm depth was 26.0°C at 0700 hrs. and 30.0°C at 1400 hrs. Average wind speed, daily sunshine hours and average daily evaporation were 5.0km/hr, 7.5 hours and 3.0mm respectively. No rainfall was recorded during this period.

**Medium Range Weather Forecast**

**(13- 17 October, 2018)**

 **(West Champaran)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Weather parameters** | **13****October** | **14****October** | **15****October** | **16****October** | **17****October** | **Remarks** |
| **Rainfall(mm)** | **0** | **0** | **0** | **0** | **0** | **Chances of light drizzle in next 12-24 hours** |
| **Max. T (°C)** | **32** | **31** | **31** | **31** | **31** | **-** |
| **Mini. T (°C)** | **21** | **21** | **20** | **20** | **20** |
| **Cloud cover (okta)** | **3** | **0** | **0** | **0** | **0** | **Partially cloudy sky** |
| **Max Relative Humidity (%)** | **95** | **95** | **902** | **90** | **90** |  |
| **Min Relative Humidity (%)** | **65** | **65** | **60** | **60** | **60** |  |
| **Wind speed (kmph)** | **10** | **10** | **10** | **10** | **10** |  |
| **Wind direction(deg)** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** | **Westerly** |

**Advisory for the farmers**

|  |  |  |
| --- | --- | --- |
| **Crop** | **Phenophases** | **Advisory (Based on weather forecast)** |
| Sugarcane | Land Preparation/Planting | Land preparation/planting is advised for sugarcane. Farmers can start this from 15th October onwards. |
| Mustard/Rai*(Sarso)* | Land preparation/Sowing | Farmers are advised to complete the sowing of rapeseed. Sowing of mustard *(yellow sarson)* and *rai* is advised. *Rajendra* *sarson-1, 66-197-3 and Swarna* varieties of mustard and *Baruna, Pusa bold, Kranti, Pusa mahak and Rajendra suflam* varieties of *rai* are recommended for sowing in north Bihar region. Seed rate@5kg per hectare and planting distance 30x10 cm is advised. Application of 30-40 kg nitrogen, 40 kg phosphorous, 40 kg potassium and 30-40 kg sulphur per hectare is advised during last ploughing. Application of 25 kg zinc sulphate/hectare is suggested in zinc deficient land. |
| Lentil*(Masur)* | Land preparation/Sowing | Sowing of lentil is advised. *Mallika (K-75), Arun (PL77-12), KLS-218, HUL-57, PL-5* varieties of lantil are recommended for sowing in north Bihar. Seed rate@30-35 kg/ha for small grains and 40-45 kg/ha for large grains with planting distance of 30cm is advised. Application of 20 kg nitrogen, 45 kg phosphorus, 20 kg potash and 20 kg sulphur per hectare is advised during land preparation. Seed should be treated with (carbendazim@1 gram + chlorpyrifos 20EC@ 8 ml) per kg of seed. Pesticides mixed seed should be treated with rhizobium culture (5packets/hectare) just before sowing. |
| Sunflower*(Suryamukhi)* | Land preparation/Sowing | Sowing of composite varieties of sunflower such as *Mordane, Surya, CO-1, DRSF-108 and Pairadevik* and hybrid varieties such as *BSH-1, KBSH-1, KBSH-44, MSFH-1, MSFH-8 and MSFH-17* are recommended for north Bihar region. Seed rate@8kg/ha for composite varieties and 5kg/ha for hybrid varieties are advised. Application of 30-40 kg nitrogen, 80-90 kg phosphorus, 40 kg potash per hectare is advised during land preparation. Seed should be treated with Thiram or Captoff @2gram/kg of seed. |
| Rice | Reproductive | Monitoring of gundhi bug is advised in paddy crop, which is in milk stage. It causes appreciable damage during this stage. If the number of pest exceeds ETL (Economic Threshold Limit) value, dusting of Folidol dust@10-15 kg per hectare is advised for suppressing the bug population in the crop field. The bunds and grasses around paddy crop may also be dusted.. |
| Vegetables | Fruiting | * Regular monitoring is advised for borer infestation in vegetables crop. The young larva of the insect feeds on the leaves, shoots, buds and flowers thereby prevent their development in to fruits. The older larvae bore in to the fruits and feed on their internal contents making it unfit for human consumption. Farmers are advised to use pheromone trap @ 3-4/acre. If pest population is above ETL (Economic Threshold Level), spraying of Spinosad 48 EC @1ml/4 liters of water is advised. Infested fruits and shoots should be collected and buried before spraying.
* Intercultural operation is advised in vegetables crop such as cauliflower, brinjal, chilli and tomato.
 |
| *Rabi* crops | Land preparation | Land preparation is advised for *rabi* crops such as *Potato, Gram, Pea, Rajma, Methi and Garlic.* Application of well decomposed FYM@150-200 quintal/ha is advised.  |

 **(A. Sattar)**

**(Nodal Officer)**