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| Bogra Region          |                 | Rabi season Chili: Fruit borer insect   |   |      |      |      |   |      |      |      |      |  |      |      |      |      | Life span: 150-160 days  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------|-----------------|---|---|------|------|------|---|------|------|------|------|--|------|------|------|------|--|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Weather warning       | Months          | December  |   |      |      |      | January   |      |      |      |      | February   |      |      |      |      | March  |      |      |      |      | April  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 |   | The upper development threshold temperature for all stages is 37 °C, and 40 °C is lethal; The optimum temperatures for the development of eggs, larvae, and pupae are around 24–27 °C |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 |   | Threshold for lower temperatures is around 10–12 °C   |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 |   | Above 85%, Fecundity is adversely affected by low humidity along with high temperature  |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 |   | <35%  |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 |   | <i>Negative correlation with rainfall</i>   |      |      |      |   |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Weekly normal weather | Std.Week/Normal | 49  | 50  | 51   | 52   | 1    | 2   | 3    | 4    | 5    | 6    | 7  | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Rainfall (mm)   | 0.0   | 3.0   | 0.0  | 4.0  | 0.0  | 2.0   | 2.0  | 1.0  | 1.0  | 1.0  | 4.0  | 3.0  | 5.0  | 2.0  | 4.0  | 3.0  | 8.0  | 8.0  | 12.0 | 26.0 | 28.0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Max. Temp. (°C) | 27.7  | 26.3  | 25.0 | 25.7 | 24.0 | 24.0  | 24.3 | 25.4 | 25.9 | 26.9 | 27.7   | 28.6 | 29.3 | 30.9 | 31.9 | 32.9   | 32.9 | 33.9 | 34.3 | 34.0 | 33.6   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | Min. Temp. (°C) | 15.0  | 14.1  | 12.0 | 13.4 | 12.0 | 11.4  | 11.4 | 12.0 | 12.9 | 13.6 | 14.6   | 15.4 | 16.4 | 17.4 | 18.3 | 20.0   | 21.1 | 22.3 | 23.0 | 23.0 | 23.1   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | RHmax (%)       | 93.7  | 94.6  | 94.3 | 94.6 | 94.1 | 94.3  | 94.3 | 93.9 | 93.1 | 92.1 | 91.4   | 90.4 | 88.7 | 89.1 | 86.4 | 86.3   | 87.7 | 88.0 | 88.3 | 90.6 | 90.9   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | RHMin (%)       | 48.1  | 50.6  | 50.6 | 50.0 | 50.9 | 49.0  | 47.7 | 46.0 | 44.9 | 41.4 | 40.3   | 39.1 | 38.0 | 36.9 | 37.1 | 39.1   | 45.3 | 44.4 | 45.9 | 50.7 | 54.9   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       | SShr (hrs)      | 54  | 48  | 49.0 | 46.0 | 44.0 | 44.0  | 46.0 | 50.0 | 50.0 | 52.0 | 53.0   | 56.0 | 60.0 | 59.0 | 61.0 | 58.0   | 56.0 | 56.0 | 56.0 | 55.0 | 52.0   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stage                 |                 |  |   |      |      |      |   |      |      |      |      |   |      |      |      |      |   |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 | Spouting & Seedling   |   |      |      |      | vegetative growth   |      |      |      |      | Flowering & fruiting   |      |      |      |      | Harvesting   |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Insect Life cycle     |                 |   |   |      |      |      |  |      |      |      |      |  |      |      |      |      |  |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                       |                 |   |   |      |      |      | Eggs<br>(2 to 4 days)   |      |      |      |      | Larva<br>(15 to 18 days)   |      |      |      |      | Pupa<br>(7 to 10 days)   |      |      |      |      | Adults<br>(7 to 10 days)   |  |  |  |  | Eggs<br>(2 to 4 days)  |  |  |  |  | Larva<br>(15 to 18 days)   |  |  |  |  | Pupa<br>(7 to 10 days)   |  |  |  |  | Adults<br>(7 to 10 days)   |  |  |  |  |

## Crop insect weather calendar of the Kharif season Chili(Fruit borer): Bogra Region (Districts: Bogra, Pabna, Sirajgonj, Joypurhat ) Bangladesh

| Bogra Region          |                 | Kharif season Chili: Fruit borer insect   |      |  |      |      |   |      |   |      |   |   |   |      |      |   |   |   | Life span 150-160 days |      |      |      |      |  |
|-----------------------|-----------------|---|------|--|------|------|---|------|---|------|---|---|---|------|------|---|---|---|------------------------|------|------|------|------|--|
| Weather warming       | Months          | April   |      |  |      |      | May   |      |   |      |   | June  |   |      |      |   | July  |   | August                 |      |      |      |      |  |
|                       | Max. Temp. (°C) | The upper development threshold temperature for all stages is 37 °C, and 40 °C is lethal; The optimum temperatures for the development of eggs, larvae, and pupae are around 24–27 °C |      |  |      |      |   |      |   |      |   |   |   |      |      |   |   |   |                        |      |      |      |      |  |
|                       | Min. Temp. (°C) | Threshold for lower temperatures is around 10–12 °C   |      |  |      |      |   |      |   |      |   |   |   |      |      |   |   |   |                        |      |      |      |      |  |
|                       | RH Max (%)      | Above 85%, Fecundity is adversely affected by low humidity along with high temperature  |      |  |      |      |   |      |   |      |   |   |   |      |      |   |   |   |                        |      |      |      |      |  |
|                       | RH Min (%)      | <35%  |      |  |      |      |   |      |   |      |   |   |   |      |      |   |   |   |                        |      |      |      |      |  |
|                       | Rainfall (mm)   | <i>Negative correlation with rainfall</i>   |      |  |      |      |   |      |   |      |   |   |   |      |      |   |   |   |                        |      |      |      |      |  |
| Weekly normal weather | Std.Week/Normal | 14  | 15   | 16   | 17   | 18   | 19  | 20   | 21  | 22   | 23  | 24  | 25  | 26   | 27   | 28  | 29  | 30  | 31                     | 32   | 33   | 34   | 35   |  |
|                       | Rainfall (mm)   | 8.0   | 12.0 | 26.0   | 28.0 | 37.0 | 42.0  | 45.0 | 58.0  | 59.0 | 74.0  | 70.0  | 92.0  | 76.0 | 93.0 | 80.0  | 91.0  | 76.0  | 63.0                   | 61.0 | 72.0 | 67.0 | 56.0 |  |
|                       | Max. Temp. (°C) | 33.9  | 34.3 | 34.0   | 33.6 | 33.1 | 33.6  | 33.4 | 33.3  | 33.9 | 33.4  | 32.7  | 32.3  | 32.3 | 32.0 | 31.9  | 32.0  | 32.1  | 32.3                   | 32.6 | 32.1 | 32.3 | 32.6 |  |
|                       | Min. Temp. (°C) | 22.3  | 23.0 | 23.0   | 23.1 | 23.3 | 23.9  | 24.3 | 24.6  | 25.0 | 25.9  | 26.0  | 26.1  | 26.1 | 26.0 | 26.1  | 26.0  | 26.1  | 26.3                   | 26.9 | 26.3 | 26.4 | 26.1 |  |
|                       | RHmax (%)       | 88.0  | 88.3 | 90.6   | 90.9 | 92.4 | 92.4  | 92.7 | 93.0  | 93.7 | 94.1  | 95.1  | 95.1  | 95.6 | 95.9 | 95.9  | 95.9  | 95.9  | 95.1                   | 95.3 | 95.6 | 95.9 | 95.7 |  |
|                       | RHMin (%)       | 44.4  | 45.9 | 50.7   | 54.9 | 57.3 | 58.7  | 60.0 | 63.4  | 64.6 | 66.7  | 70.4  | 72.4  | 73.9 | 73.3 | 74.1  | 74.4  | 73.3  | 72.0                   | 71.9 | 73.3 | 72.7 | 71.7 |  |
|                       | SShr (hrs)      | 56.0  | 56.0 | 55.0   | 52.0 | 48.0 | 50.0  | 49.0 | 46.0  | 44.0 | 39.0  | 33.0  | 28.0  | 26.0 | 28.0 | 31.0  | 29.0  | 28.0  | 35.0                   | 37.0 | 36.0 | 31.0 | 35.0 |  |
| Stage                 |                 |    |      |  |      |      |   |      |   |      |   |  |   |      |      |   |  |   |                        |      |      |      |      |  |
|                       |                 | Spouting & Seedling   |      |  |      |      | vegetative growth   |      |   |      |   | Flowering & fruiting  |   |      |      |   | Harvesting  |   |                        |      |      |      |      |  |
| insect Life cycle     |                 |    |      |  |      |      |  |      |  |      |  |   |  |      |      |  |   |  |                        |      |      |      |      |  |
|                       |                 | Eggs<br>(2 to 4 days)   |      | Larva<br>(15 to 18 days)   |      |      | Pupa<br>(7 to 10 days)  |      | Adults<br>(7 to 10 days)  |      | Eggs<br>(2 to 4 days)   |   | Larva<br>(15 to 18 days)  |      |      | Pupa<br>(7 to 10 days)  |   | Adults<br>(7 to 10 days)  |                        |      |      |      |      |  |