

Griswold 2011 Black Rot - Grape From 2011-08-22 To 2011-09-15

| Date  | High Temp | Low Temp | Wet Hours | Daily Risk | Warning        |
|-------|-----------|----------|-----------|------------|----------------|
| 08/26 | 88.4      | 66.2     | 11.0      | 1.21       | Infection Risk |
| 08/27 | 77.4      | 63.7     | 20.8      | 3.93       | Infection Risk |
| 08/28 | 74.9      | 64.3     | 21.0      | 7.46       | Infection Risk |
| 08/29 | 78.3      | 54.1     | 8.8       | 7.76       | Infection Risk |
| 08/30 | 82.1      | 50.1     | 13.5      | 0.95       |                |
| 08/31 | 87.1      | 50.9     | 12.8      | 1.05       | Infection Risk |
| 09/01 | 81.1      | 56.9     | 12.8      | 1.61       | Infection Risk |
| 09/02 | 80.5      | 53.0     | 12.8      | 1.13       | Infection Risk |
| 09/03 | 82.5      | 54.5     | 10.5      | 1.16       | Infection Risk |
| 09/04 | 81.4      | 64.7     | 7.3       | 1.53       | Infection Risk |
| 09/05 | 81.3      | 64.8     | 6.8       | 0.69       |                |
| 09/06 | 72.7      | 58.1     | 24.0      | 3.42       | Infection Risk |
| 09/07 | 66.9      | 58.1     | 20.5      | 5.84       | Infection Risk |
| 09/08 | 77.2      | 58.9     | 13.0      | 7.03       | Infection Risk |
| 09/09 | 82.8      | 57.9     | 10.8      | 0.91       |                |
| 09/10 | 82.9      | 52.9     | 10.3      | 1.28       | Infection Risk |
| 09/11 | 74.1      | 51.0     | 8.5       | 0.57       |                |
| 09/12 | 82.2      | 59.3     | 8.5       | 0.68       |                |
| 09/13 | 83.1      | 58.3     | 9.3       | 1.67       | Infection Risk |
| 09/14 | 84.9      | 67.2     | 11.5      | 1.36       | Infection Risk |
| 09/15 | 71.9      | 66.9     | 8.3       | 2.14       | Infection Risk |

Griswold 2011 Botrytis - Grape From 2011-08-22 To 2011-09-15

| Date  | High Temp | Low Temp | Wet Hours | RH>95 Hours | Daily Risk | Warning                 |
|-------|-----------|----------|-----------|-------------|------------|-------------------------|
| 08/26 | 88.4      | 66.2     | 11.0      | 8.0         | 0.19       | Low Infection Risk      |
| 08/27 | 77.4      | 63.7     | 20.8      | 18.8        | 2.35       | High Infection Risk     |
| 08/28 | 74.9      | 64.3     | 21.0      | 16.5        | 2.54       | High Infection Risk     |
| 08/29 | 78.3      | 54.1     | 8.8       | 6.3         | 0.00       |                         |
| 08/30 | 82.1      | 50.1     | 13.5      | 11.5        | 0.00       |                         |
| 08/31 | 87.1      | 50.9     | 12.8      | 9.8         | 0.00       |                         |
| 09/01 | 81.1      | 56.9     | 12.8      | 11.3        | 0.29       | Low Infection Risk      |
| 09/02 | 80.5      | 53.0     | 12.8      | 10.5        | 0.00       |                         |
| 09/03 | 82.5      | 54.5     | 10.5      | 8.0         | 0.00       |                         |
| 09/04 | 81.4      | 64.7     | 7.3       | 5.3         | 0.00       |                         |
| 09/05 | 81.3      | 64.8     | 6.8       | 1.5         | 0.00       |                         |
| 09/06 | 72.7      | 58.1     | 24.0      | 18.0        | 2.78       | High Infection Risk     |
| 09/07 | 66.9      | 58.1     | 20.5      | 21.0        | 1.97       | High Infection Risk     |
| 09/08 | 77.2      | 58.9     | 13.0      | 16.0        | 0.76       | Moderate Infection Risk |
| 09/09 | 82.8      | 57.9     | 10.8      | 12.3        | 0.21       | Low Infection Risk      |
| 09/10 | 82.9      | 52.9     | 10.3      | 8.8         | 0.00       |                         |
| 09/11 | 74.1      | 51.0     | 8.5       | 5.8         | 0.00       |                         |
| 09/12 | 82.2      | 59.3     | 8.5       | 8.5         | 0.00       |                         |
| 09/13 | 83.1      | 58.3     | 9.3       | 9.0         | 0.00       |                         |
| 09/14 | 84.9      | 67.2     | 11.5      | 10.0        | 0.26       | Low Infection Risk      |
| 09/15 | 71.9      | 66.9     | 8.3       | 8.5         | 0.00       |                         |

Griswold 2011 Downy Mildew - Grape From 2011-08-22 To 2011-09-15

| Date  | High Temp | Deg Hrs43 | Rain Fall | Wet Hours | Hours>95%RH 43-86 | 66-77 | Risk | Warning                |
|-------|-----------|-----------|-----------|-----------|-------------------|-------|------|------------------------|
| 08/26 | 88.4      | >min      | 0.01      | 11.0      | 7.5               | 7.5   | 3    | High Risk of Infection |
| 08/27 | 77.4      | >min      | 0.45      | 20.8      | 16.8              | 10.5  | 3    | High Risk of Infection |
| 08/28 | 74.9      | >min      | 2.55      | 21.0      | 14.3              | 14.3  | 3    | High Risk of Infection |
| 08/29 | 78.3      | >min      |           | 8.8       | 5.0               | 0.0   | 1    | Possible Infection     |
| 08/30 | 82.1      | >min      |           | 13.5      | 10.8              | 0.0   | 1    | Possible Infection     |
| 08/31 | 87.1      | >min      |           | 12.8      | 9.0               | 0.0   | 1    | Possible Infection     |
| 09/01 | 81.1      | >min      |           | 12.8      | 10.8              | 0.3   | 1    | Possible Infection     |
| 09/02 | 80.5      | >min      |           | 12.8      | 9.3               | 0.0   | 1    | Possible Infection     |
| 09/03 | 82.5      | >min      |           | 10.5      | 8.0               | 0.0   | 1    | Possible Infection     |
| 09/04 | 81.4      | >min      |           | 7.3       | 3.3               | 1.3   | 3    | High Risk of Infection |
| 09/05 | 81.3      | >min      |           | 6.8       | 0.5               | 0.0   | 1    | Possible Infection     |
| 09/06 | 72.7      | >min      | 1.98      | 24.0      | 15.0              | 0.3   | 1    | Possible Infection     |
| 09/07 | 66.9      | >min      | 0.84      | 20.5      | 19.8              | 0.0   | 1    | Possible Infection     |
| 09/08 | 77.2      | >min      | 1.75      | 13.0      | 15.0              | 0.0   | 1    | Possible Infection     |
| 09/09 | 82.8      | >min      |           | 10.8      | 11.3              | 0.0   | 1    | Possible Infection     |
| 09/10 | 82.9      | >min      |           | 10.3      | 8.8               | 0.0   | 1    | Possible Infection     |
| 09/11 | 74.1      | >min      |           | 8.5       | 4.8               | 0.0   | 1    | Possible Infection     |
| 09/12 | 82.2      | >min      |           | 8.5       | 7.0               | 0.3   | 1    | Possible Infection     |
| 09/13 | 83.1      | >min      |           | 9.3       | 9.0               | 1.5   | 3    | High Risk of Infection |
| 09/14 | 84.9      | >min      |           | 11.5      | 5.0               | 5.0   | 3    | High Risk of Infection |
| 09/15 | 71.9      | >min      |           | 8.3       | 8.3               | 8.3   | 3    | High Risk of Infection |

Griswold 2011 Powdery Mildew - Grape From 2011-08-22 To 2011-09-15

| Date  | Temperature High | Temperature Mean | Hours 70-85 | Hours >95 | Wet Hours | Ascospore Infection | Conidial Index |
|-------|------------------|------------------|-------------|-----------|-----------|---------------------|----------------|
| 08/26 | 88.4             | 75.4             | 5.5         | 0.0       | 10.8      |                     | 70 Heavy       |
| 08/27 | 77.4             | 72.0             | 15.8        | 0.0       | 20.5      | Heavy               | 90 Heavy       |
| 08/28 | 74.9             | 70.3             | 11.0        | 0.0       | 20.5      | Heavy               | 100 Heavy      |
| 08/29 | 78.3             | 65.5             | 8.5         | 0.0       | 8.5       | Heavy               | 100 Heavy      |
| 08/30 | 82.1             | 64.9             | 9.0         | 0.0       | 13.3      |                     | 100 Heavy      |
| 08/31 | 87.1             | 67.7             | 7.3         | 0.0       | 12.5      |                     | 100 Heavy      |
| 09/01 | 81.1             | 67.5             | 10.0        | 0.0       | 12.8      |                     | 100 Heavy      |
| 09/02 | 80.5             | 65.0             | 8.8         | 0.0       | 12.8      |                     | 100 Heavy      |
| 09/03 | 82.5             | 68.1             | 11.5        | 0.0       | 10.0      |                     | 100 Heavy      |
| 09/04 | 81.4             | 72.4             | 13.5        | 0.0       | 7.3       |                     | 100 Heavy      |
| 09/05 | 81.3             | 73.3             | 16.5        | 0.0       | 6.3       |                     | 100 Heavy      |
| 09/06 | 72.7             | 63.0             | 5.3         | 0.0       | 23.8      | Heavy               | 90 Heavy       |
| 09/07 | 66.9             | 62.0             | 0.0         | 0.0       | 20.5      | Heavy               | 80 Heavy       |
| 09/08 | 77.2             | 64.5             | 5.3         | 0.0       | 13.0      | Heavy               | 70 Heavy       |
| 09/09 | 82.8             | 68.3             | 9.5         | 0.0       | 10.0      |                     | 90 Heavy       |
| 09/10 | 82.9             | 66.2             | 9.0         | 0.0       | 10.3      |                     | 100 Heavy      |
| 09/11 | 74.1             | 62.4             | 6.8         | 0.0       | 8.5       |                     | 100 Heavy      |
| 09/12 | 82.2             | 69.3             | 9.8         | 0.0       | 8.5       |                     | 100 Heavy      |
| 09/13 | 83.1             | 70.6             | 11.5        | 0.0       | 9.3       | Heavy               | 100 Heavy      |
| 09/14 | 84.9             | 73.9             | 12.3        | 0.0       | 11.5      |                     | 100 Heavy      |
| 09/15 | 71.9             | 68.5             | 1.0         | 0.0       | 8.0       |                     | 90 Heavy       |

Griswold 2011 Phomopsis Cane+Leaf Spot - Grape From 2011-08-22 To 2011-09-15

| Date  | Temp<br>Mean | Wet<br>Hours | Rain-<br>Fall | Wet+<br>Rain | Wet<br>Temp | Disease Intensity |             |
|-------|--------------|--------------|---------------|--------------|-------------|-------------------|-------------|
|       |              |              |               |              |             | Catawba           | Seyval      |
| 08/22 | 70.0         | 12.0         | 0.18          | 7.0          | 70.2        | 25 Light          | 51 Moderate |
| 08/23 | 64.9         | 11.3         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 08/24 | 66.7         | 10.5         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 08/25 | 74.2         | 7.5          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 08/26 | 75.4         | 11.5         | 0.01          | 4.8          | 68.9        | 15 Light          | 34 Moderate |
| 08/27 | 72.0         | 21.3         | 0.45          | 14.3         | 75.5        | 51 Moderate       | 94 High     |
| 08/28 | 70.3         | 22.3         | 2.55          | 32.3         | 72.1        | 203 High          | 241 High    |
| 08/29 | 65.5         | 9.3          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 08/30 | 64.9         | 13.8         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 08/31 | 67.7         | 13.0         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/01 | 67.5         | 12.8         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/02 | 65.0         | 13.3         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/03 | 68.1         | 11.5         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/04 | 72.4         | 7.8          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/05 | 73.3         | 7.5          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/06 | 63.0         | 24.0         | 1.98          | 19.0         | 60.6        | 112 High          | 133 High    |
| 09/07 | 62.0         | 20.5         | 0.84          | 70.0         | 60.8        | 728 High          | 517 High    |
| 09/08 | 64.5         | 15.3         | 1.75          | 50.3         | 60.8        | 453 High          | 366 High    |
| 09/09 | 68.3         | 12.5         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/10 | 66.2         | 11.0         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/11 | 62.4         | 9.3          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/12 | 69.3         | 9.5          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/13 | 70.6         | 9.5          | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/14 | 73.9         | 12.0         | 0.00          | 0.0          | 0.0         | 0                 | 0           |
| 09/15 | 68.5         | 8.5          | 0.00          | 0.0          | 0.0         | 0                 | 0           |

Wet+Rain is the number of rain-initiated leaf wetness hours

Wet Temp is the mean temperature during the rain-initiated wetness period

Disease Intensity projects the estimated lesions per leaf