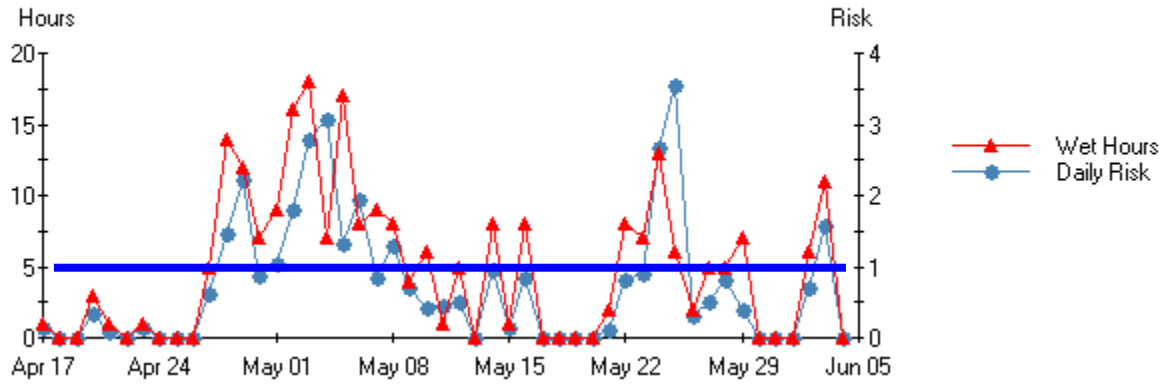
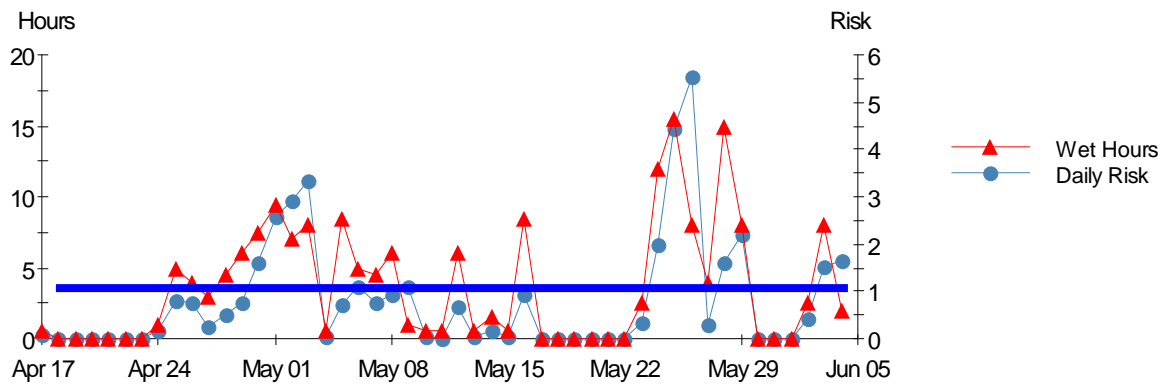


**Graphs of Daily Risk of Grape Diseases  
For Hindsville, AR and Purdy, MO (mid-April through 5 June 2009)  
And Degree day Maps of Grape berry Moth and Grape Phylloxera**

Hindsville 07 to date - Black Rot - Grape

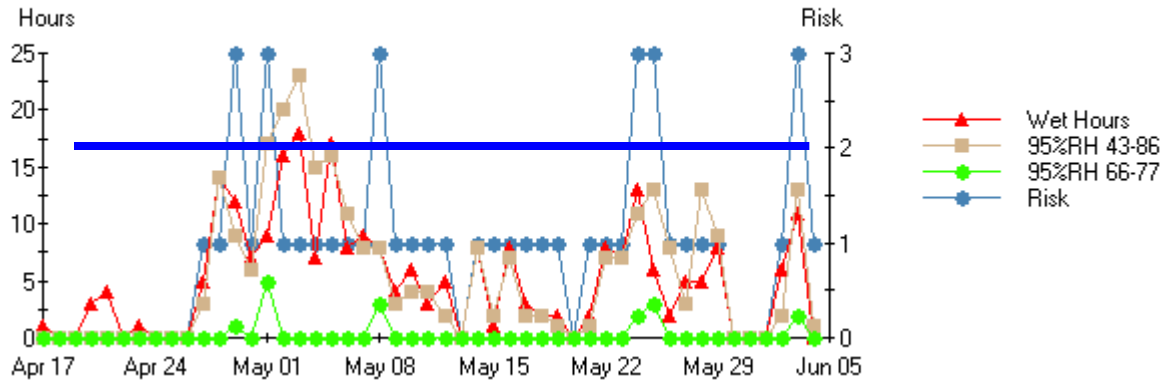


Purdy Soil Temp 09 - Black Rot - Grape

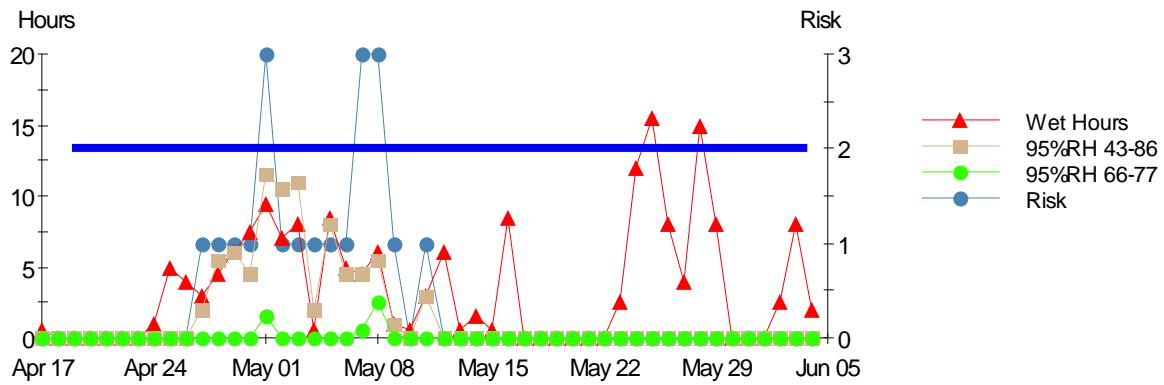


**Risk for black rot fruit infection is just before bloom until about 6 weeks after bloom.**  
Black rot infections occurred from 28 Apr. to 3 or 6 May, 24-26 May and 3 June, when **blue dots** were at or above Risk of 1 (**blue line**)

Hindsville 07 to date - Downy Mildew - Grape

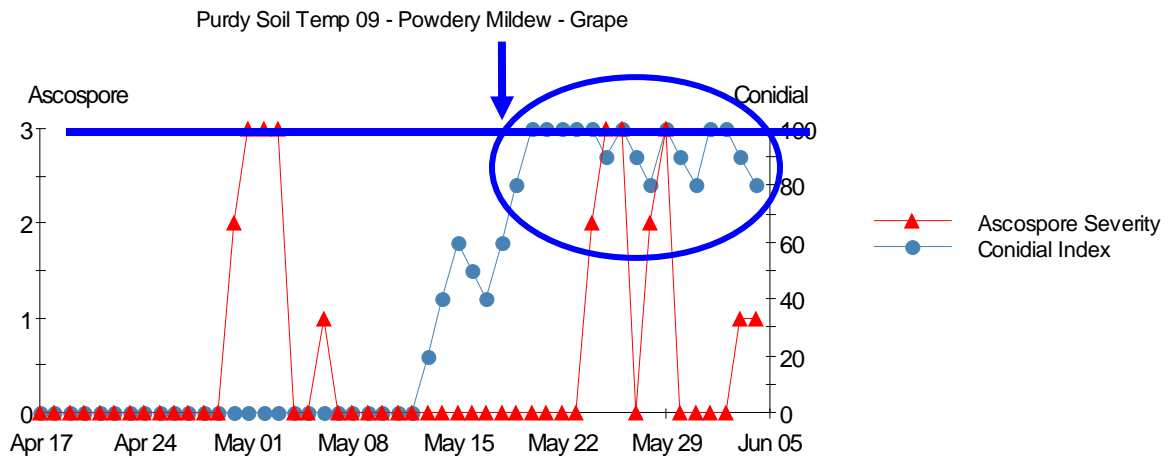
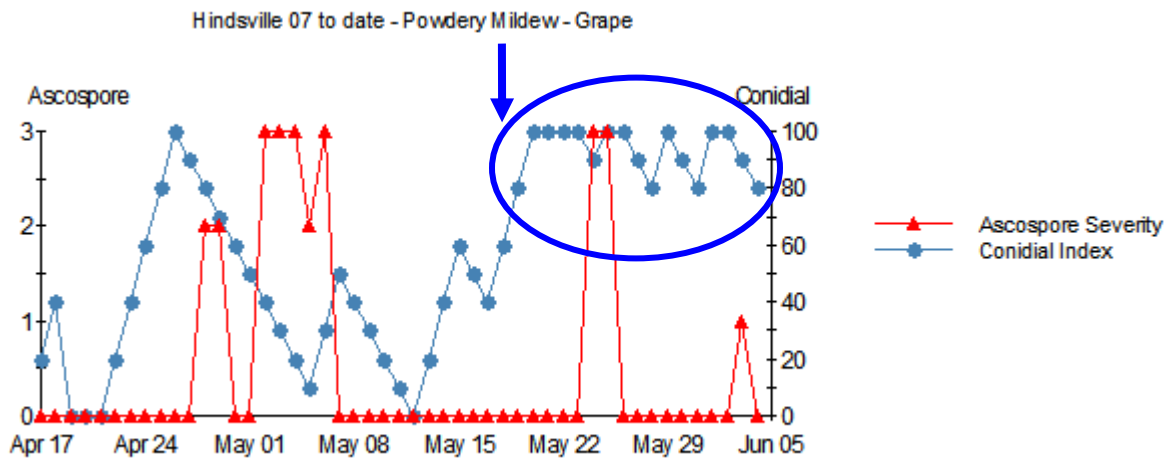


Purdy Soil Temp 09 - Downy Mildew - Grape



**Fruit are most susceptible from about 2 weeks before bloom until 4 weeks after bloom.**

There was no risk of infection after early May since no **blue dots** or **tan squares** exceeded Risk > 2 (**blue line**).



**Most important sprays - a week or 2 before bloom to about 1 month after bloom.**

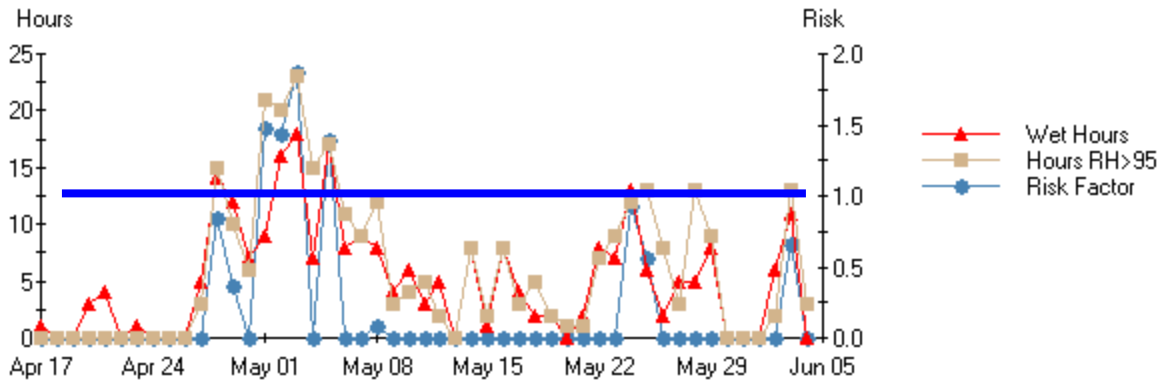
Severe Ascospore infection if **Ascospore Severity >2**.

Infection by Conidia when **Conidia Index > 60**.

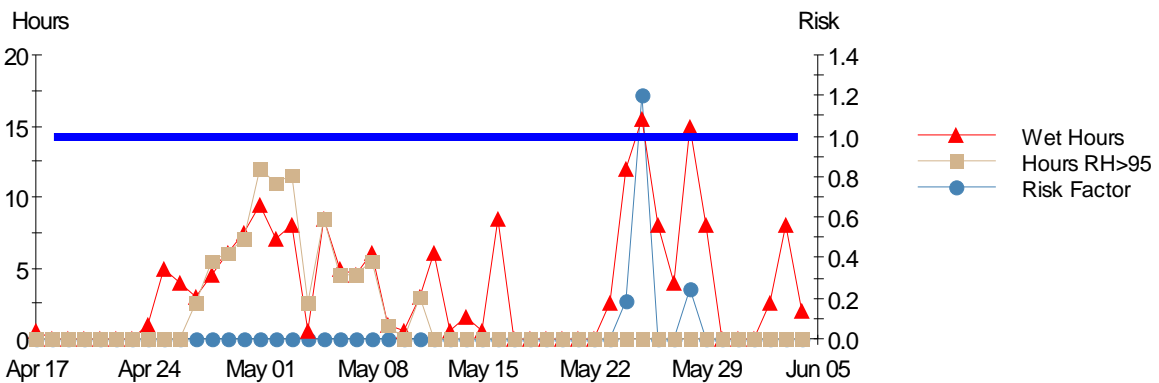
Powdery mildew conditions (**circled, blue dots > 60 conidia Index**) occurred by 18 May.

After each spray (**arrows**), model is to be re-run starting conidia index at zero and spray again when it reaches **60 Conidial Index (blue dot)**.

Hindsville 07 to date - Botrytis - Grape



Purdy Soil Temp 09 - Botrytis - Grape

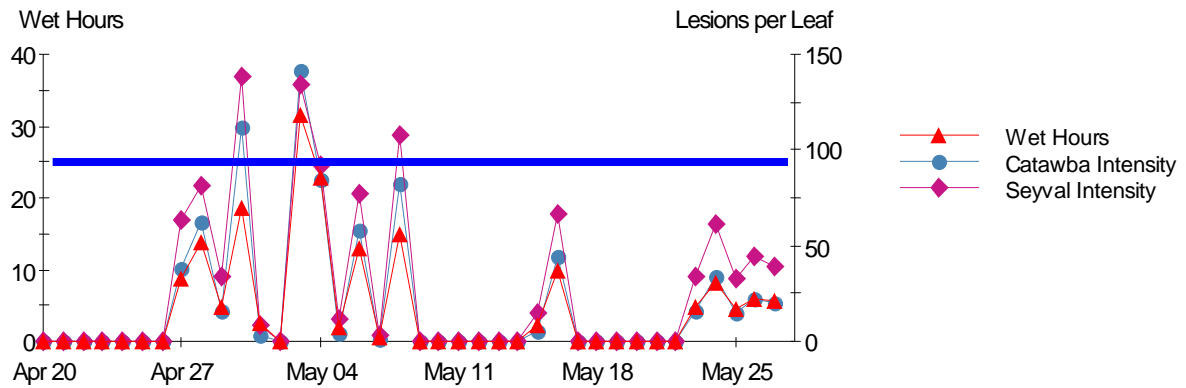


**Spray about bloom, closing, veraison and preharvest to protect fruit.**

There were no Botrytis infections since 5 May in Hindsville and none in Purdy. It was not cool (< 85°F), nor had > 10 hrs leaf wetness (**red triangles**) and > 95% RH humid for > 12 hrs (**tan squares**) as noted by the **blue dot** or tan squares that exceeded Risk > 1 (**blue line**).

## St. James, MO – Phomopsis

St James 09 - Phomopsis Cane+Leaf Spot - Grape



**Potential for phomopsis infection starts by 1 or 2 inches of shoot growth in April.**

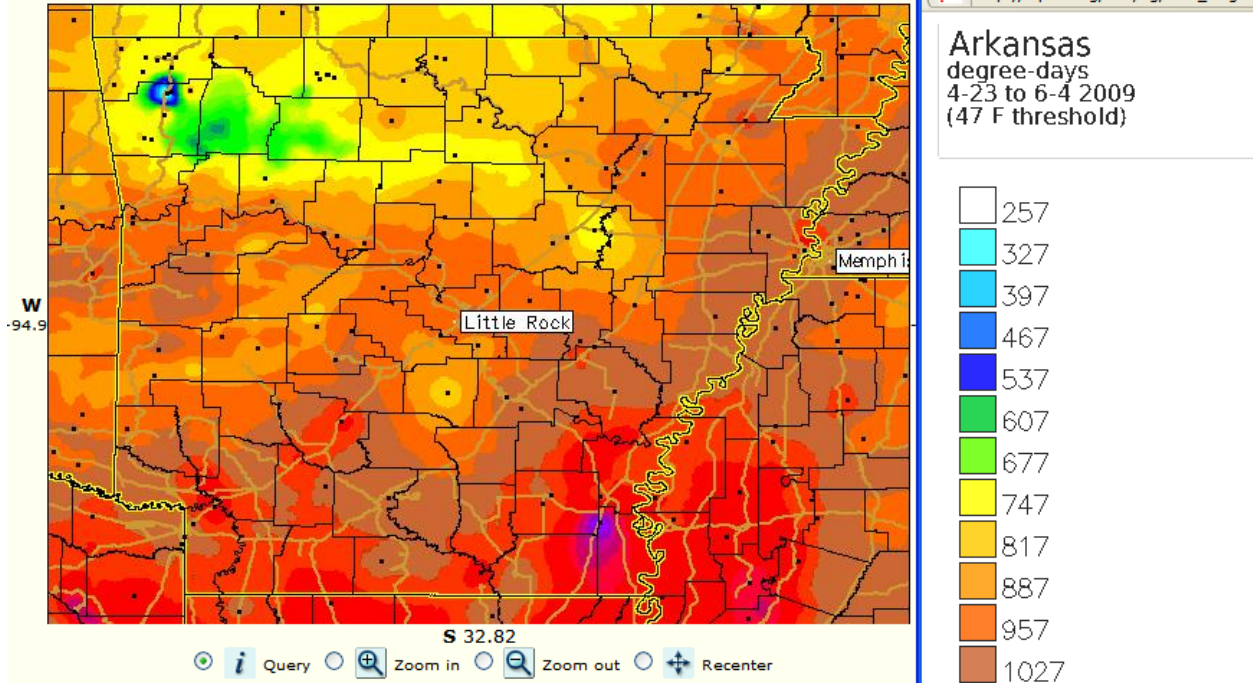
Lesion per leaf (1-30 = light, 31-90 = moderate, 90+ = heavy) signifies severity of disease infection following adequate amounts of rainfall to disperse spores (**blue line**).

Heavy phomopsis infections (> 90 lesions/leaf) occurred on 30 April, 3, 4 & 8 May when **blue dots (Catawba model)** and **purple diamonds (Seyval model)** were at or above 90 lesions/leaf.

**Grape berry Moth Cumulative Degree-days from 23 April to 5 June**  
**1<sup>st</sup> generation is completed**  
**2<sup>nd</sup> GBM hatch will occur from 1300 to 1700 DD**  
**(base 47 F to 93 F)**

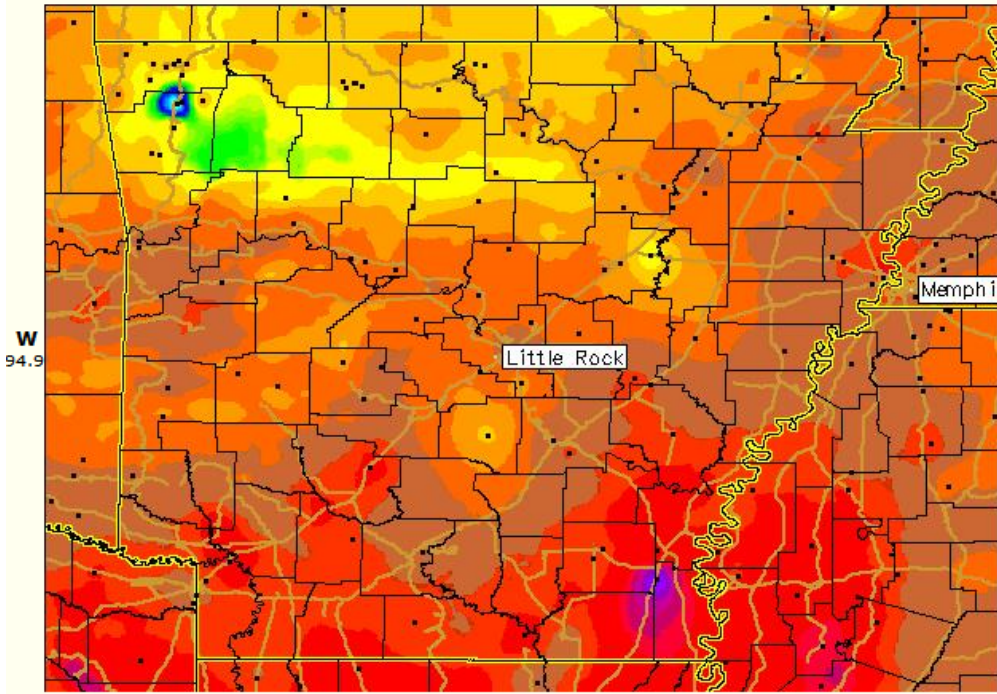
**GRASSLinks 3.5 at OSU**

**Cumulative degree-days base 47 in Arkansas Apr 23 - Jun 4 2009**  
**N 36.69**



**Grape phylloxera Cumulative Degree-days from**  
**28 April (egg hatch shortly after first leaf) to 5 June**  
**2<sup>nd</sup> generation crawler hatch occurs from 300 to 700 DD**  
**Later generation crawlers begin after 1,000 DD – orange area on map**  
**(base 44 F to 96 F)**

Cumulative degree-days base 44 in Arkansas Apr 28 - Jun 4 2009  
N 36.69



Arkansas  
degree-days  
4-28 to 6-4 2009  
(44 F threshold)

- 273
- 343
- 413
- 483
- 553
- 623
- 693
- 763
- 833
- 903
- 973
- 1043
- 1113

Query Zoom in Zoom out Recenter