

A man with curly hair, wearing a dark green jacket and brown trousers, is walking through a vineyard. He is looking at a bunch of dark grapes hanging from a vine on the left. The vineyard has rows of grapevines with green and some reddish leaves. The ground is dry and brownish. The sky is overcast.

# Season Review

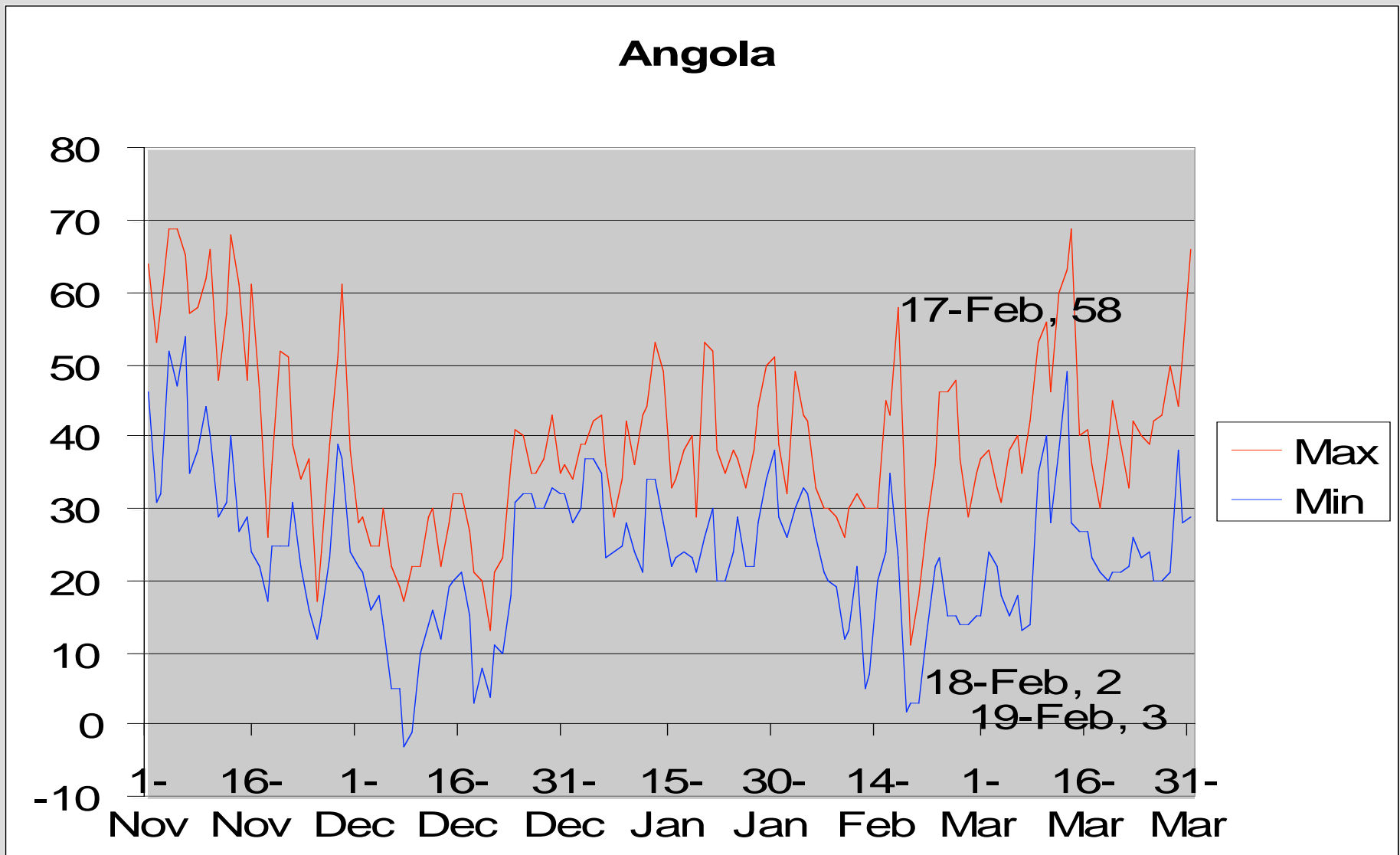
**Indiana's 2006  
Vintage**

# Winter Weather

- Early cold snap and heavy snowfall (mid-Dec)
- January was nearly 13° warmer than normal, and wetter than normal
- Winter came back in February, but was not severe. A few lows below 0°, and a few inches of snow
- Overall, winter was warmer and drier than normal

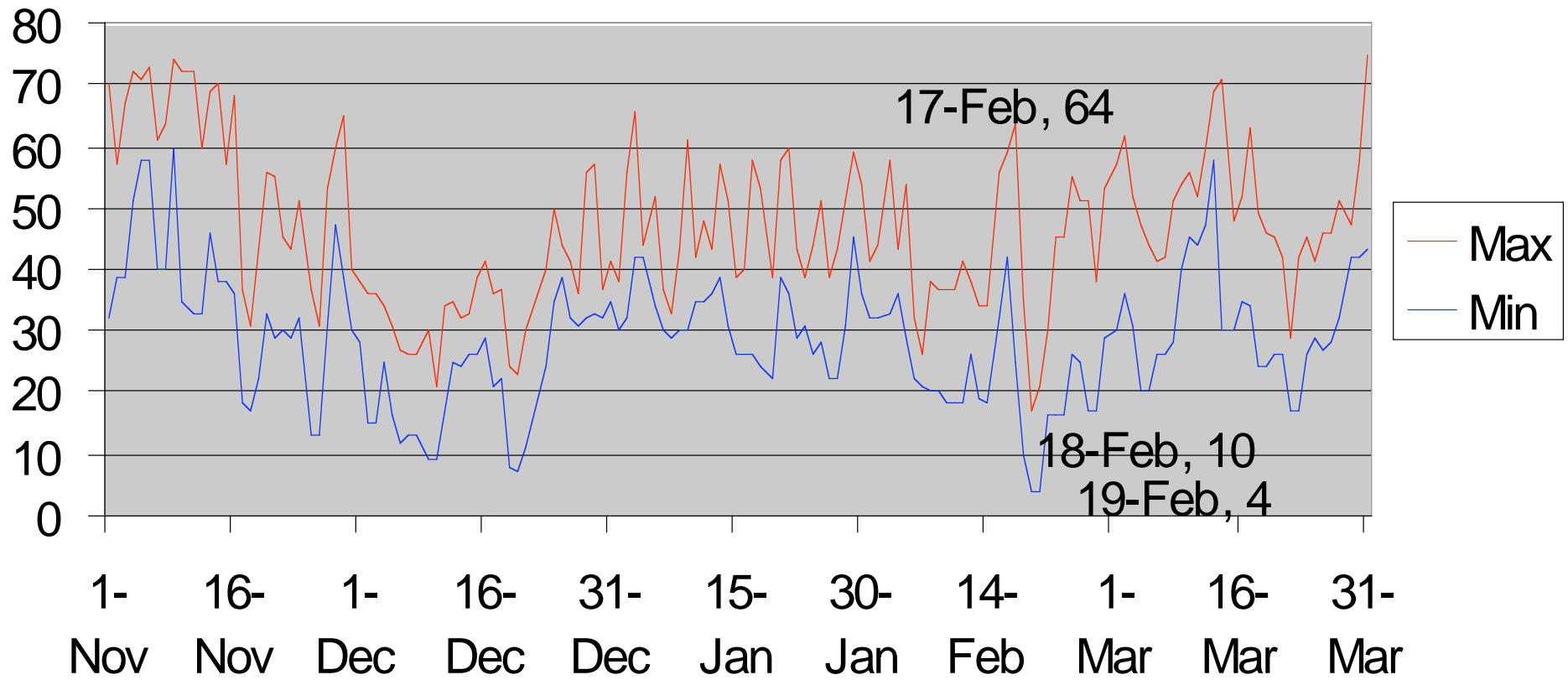
# Winter temperatures 2005-2006

## Angola

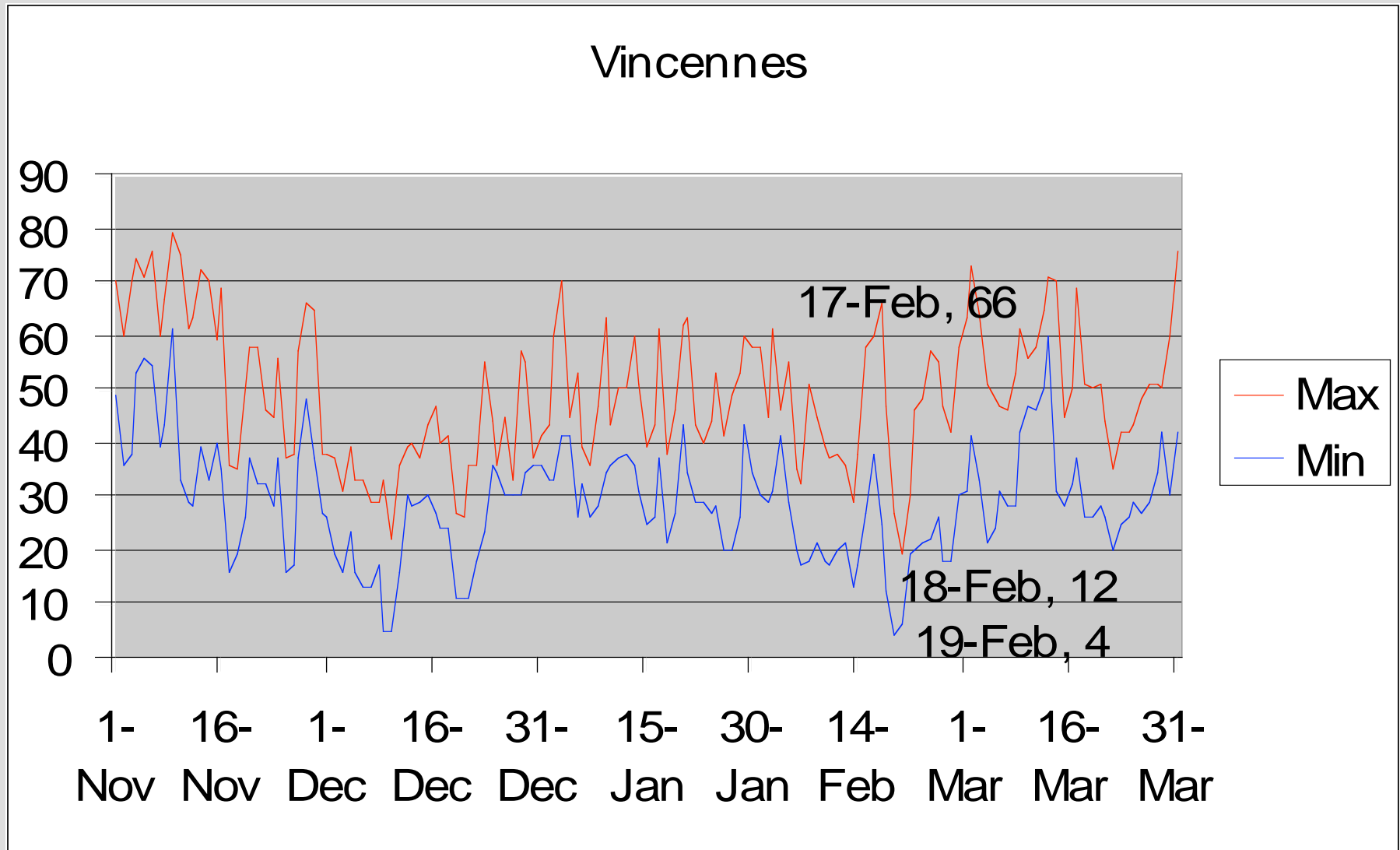


# Winter temperatures 2005-2006

## Bloomington



# Winter temperatures 2005-2006



# Winter Injury?

- Essentially no significant winter injury in 2005-2006



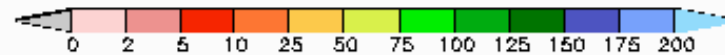
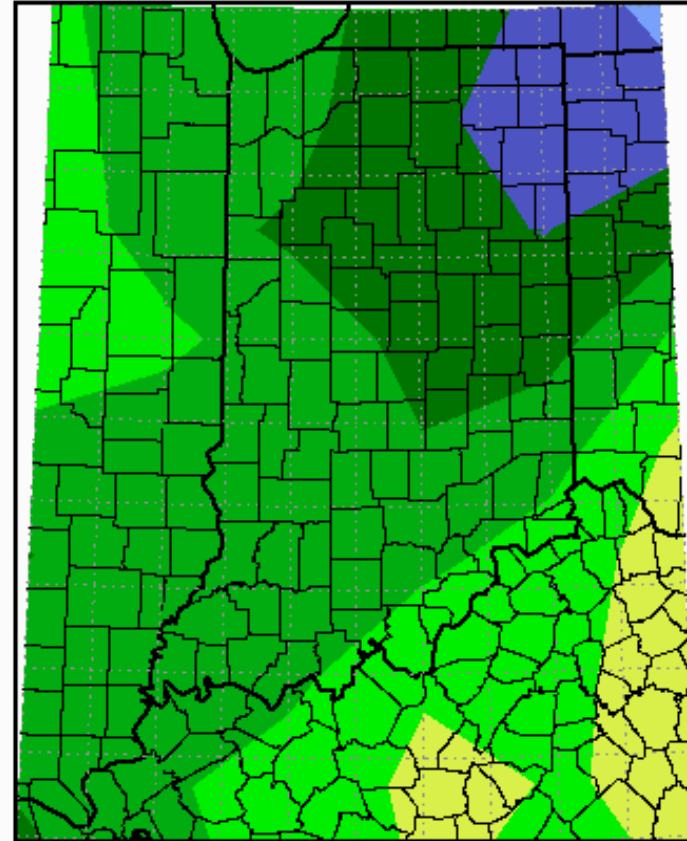
# Spring

- Frost events? April 26-28
  - Only in Northern Indiana and SW Michigan (70% loss of Concords), Western NY
- Cool and wet in March
- Warm and wet April
- Cool and wet in Mid-May (pre-bloom)

# May Precipitation

- May was wet in most areas (as normal)
- May 10-20 saw 1.5" above normal rainfall statewide

Total Precipitation Percent of Mean  
May 1, 2006 to May 31, 2006



Midwestern Regional Climate Center

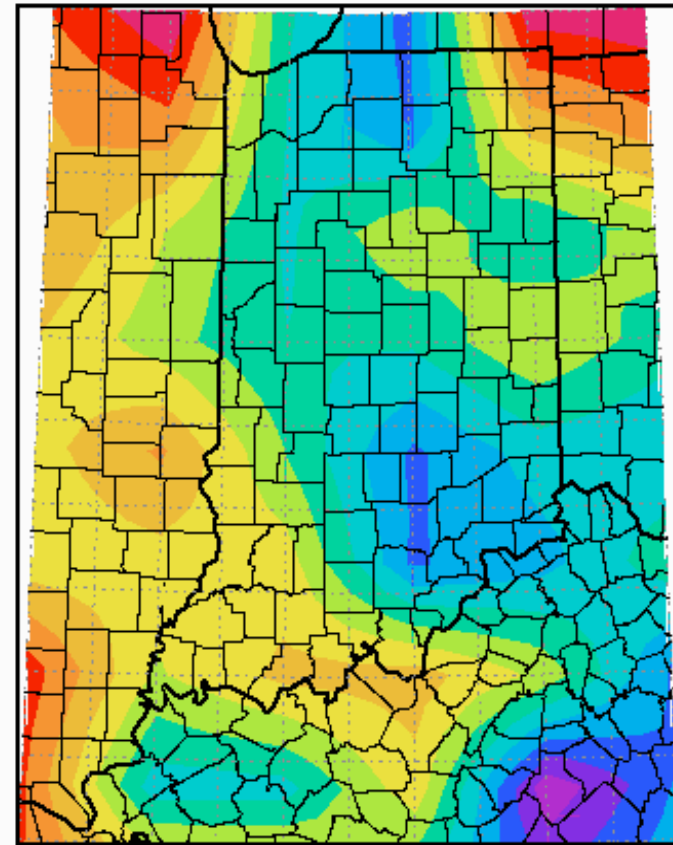
Illinois State Water Survey

Champaign, Illinois

# May Temperature

- All of Indiana was cooler than normal in May
- May 10-20 was almost 10° cooler than normal
- Cool and wet May = reduced fruit set

Average Temperature Departure from Mean in Degrees F  
May 1, 2006 to May 31, 2006



-2.2 -2 -1.3 -1.6 -1.4 -1.2 -1 -0.8 -0.6 -0.4 -0.2

Midwestern Regional Climate Center

Illinois State Water Survey

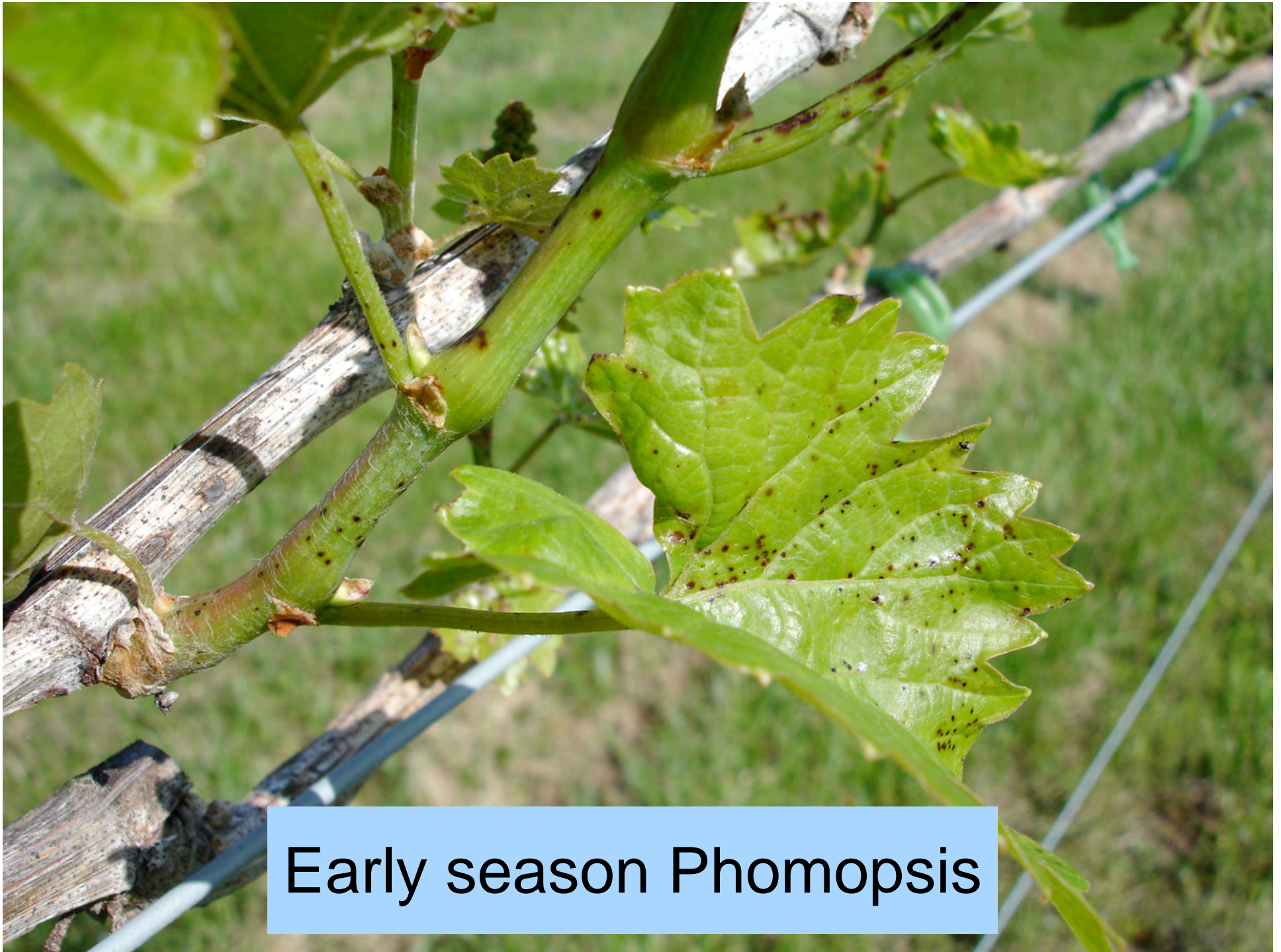
Champaign, Illinois

## Spring (March-May) 2006 Temperature

<b>Region</b>	<b>Average</b>	<b>Normal</b>	<b>Deviation</b>
Northwest	50.9	50.0	0.9
North central	50.3	49.4	1.0
Northeast	50.2	48.9	1.3
West central	52.6	51.8	0.8
Central	52.0	51.2	0.8
East central	51.5	50.3	1.2
Southwest	56.2	55.1	1.1
South central	54.7	54.4	0.3
Southeast	53.5	53.4	0.1
<b>State</b>	<b>52.5</b>	<b>51.7</b>	<b>0.9</b>

## Spring (March-May) 2006 Precipitation

Region	Total	Normal	Deviation	Percent of Normal
Northwest	12.46	10.64	1.83	117
North central	12.06	10.34	1.72	117
Northeast	11.64	10.05	1.58	116
West central	14.95	11.73	3.22	127
Central	15.59	11.68	3.91	133
East central	13.99	11.23	2.75	125
Southwest	18.74	13.70	5.04	137
South central	18.52	13.61	4.91	136
Southeast	16.01	13.03	2.97	123
State	15.06	11.82	3.24	127



Early season Phomopsis

Poor fruit set



# Summer

- Temperatures were cooler than normal in June and the first week of July, but heated up with above average temperatures the rest of July and August
- Precipitation was above normal statewide
- In August, almost five inches fell in central IN on the 10<sup>th</sup> and 11<sup>th</sup>, and six inches fell the 25<sup>th</sup>-27<sup>th</sup> in east central and southern IN
  - Led to downy mildew outbreak
- Hail in some areas

## Summer (June - August) 2006 Temperature

Region	Average	Normal	Deviation
Northwest	72.0	71.8	0.2
North central	71.5	71.2	0.2
Northeast	71.5	70.9	0.6
West central	73.2	73.0	0.2
Central	72.7	72.4	0.2
East central	72.2	71.6	0.6
Southwest	75.9	75.3	0.7
South central	74.9	74.5	0.4
Southeast	74.0	73.7	0.3
State	73.2	72.8	0.4

## Summer (June - August) 2006 Precipitation

Region	Total	Normal	Deviation	Percent of Normal
Northwest	15.06	11.93	3.13	126
North central	14.25	11.86	2.38	120
Northeast	12.76	11.36	1.40	112
West central	14.37	12.63	1.74	114
Central	15.28	12.08	3.21	127
East central	15.06	11.85	3.22	127
Southwest	13.76	12.03	1.73	114
South central	14.18	12.30	1.88	115
Southeast	14.10	12.18	1.93	116
<b>State</b>	<b>14.36</b>	<b>12.04</b>	<b>2.32</b>	<b>119</b>

# Hail damage



**Phomopsis Cane and Leaf  
Spot (fruit rot)**



Phomopsis  
-Cluster stem  
damage



Phomopsis  
-Cluster  
stem/pedicle  
damage

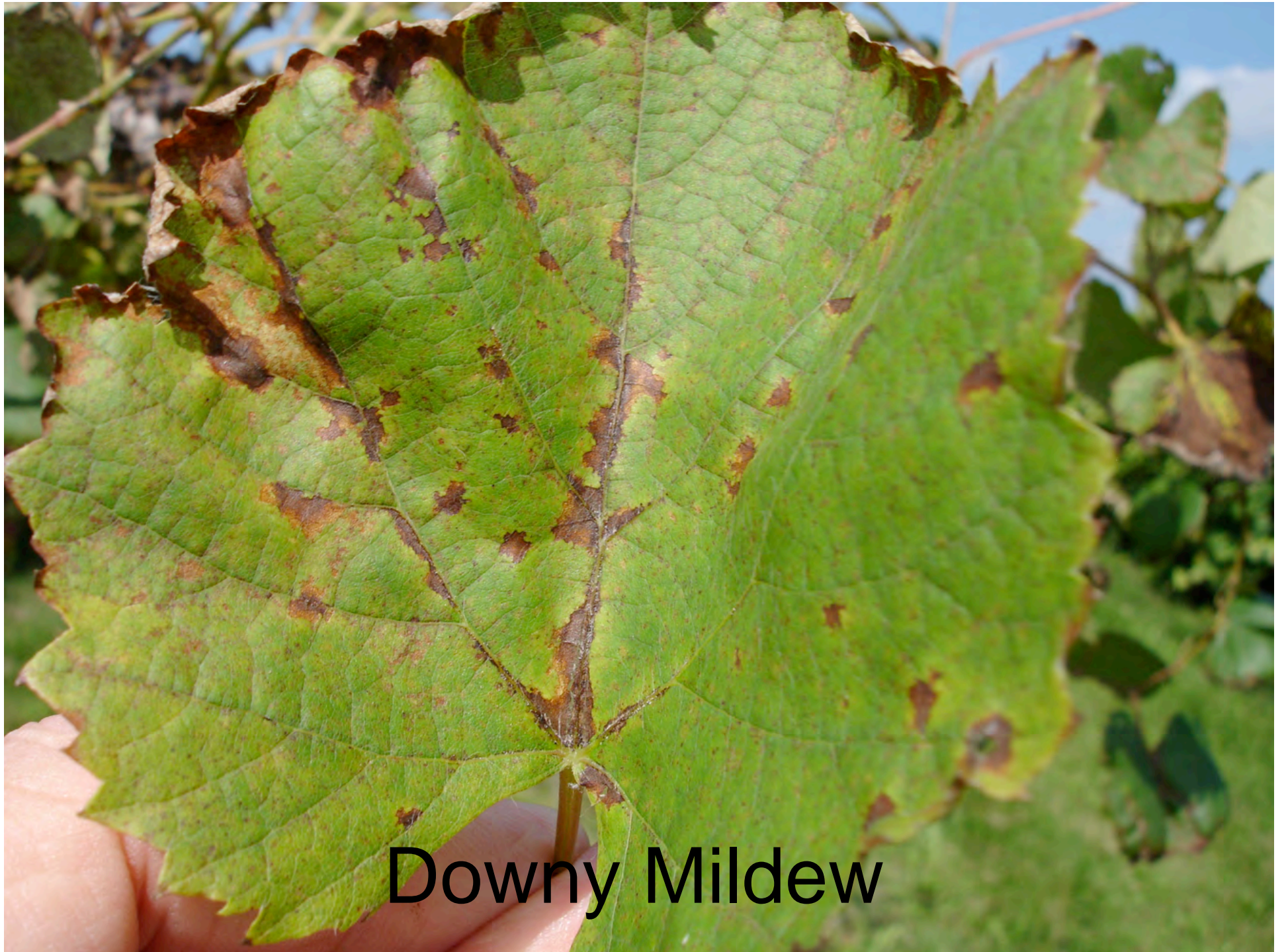


# Phomopsis - fruit rot



# Downy Mildew





**Downy Mildew**

# Downy Mildew



# Fall

- Cool and wet conditions-delayed ripening
  - High sugars
  - High acids
  - Low pH
- Fruit quality was good despite some problems

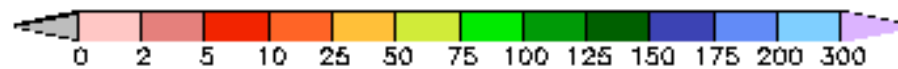
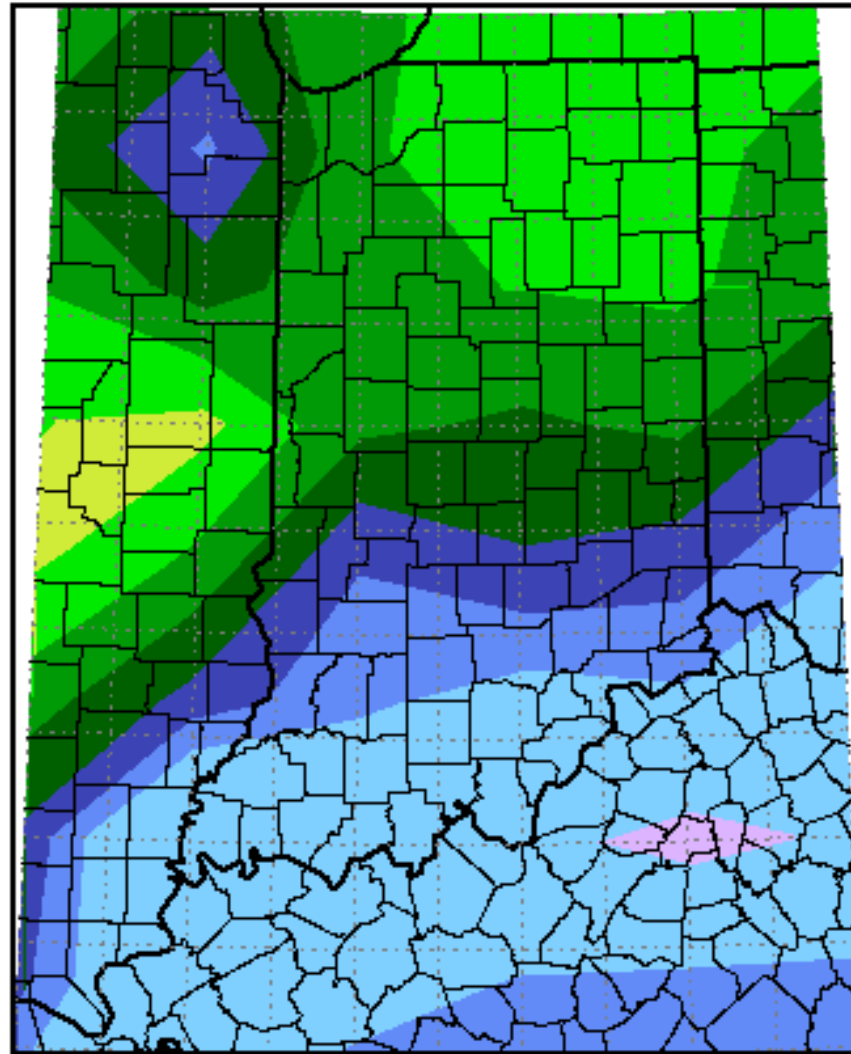
## Fall (Sept - Nov) 2006 Temperature

Region	Average	Normal	Deviation
Northwest	51.2	52.3	-1.1
North central	50.8	51.8	-1.0
Northeast	50.5	51.4	-0.9
West central	52.4	53.6	-1.3
Central	52.2	53.2	-1.0
East central	51.8	52.4	-0.7
Southwest	54.3	56.4	-2.1
South central	53.7	55.8	-2.1
Southeast	53.4	55.1	-1.6
State	52.3	53.6	-1.3

## Fall (Sept-Nov) 2006 Precipitation

Region	Total	Normal	Deviation	Percent of Normal
Northwest	12.14	9.28	2.86	131
North central	11.94	9.39	2.55	127
Northeast	11.76	8.92	2.83	132
West central	13.54	9.52	4.02	142
Central	14.62	9.43	5.19	155
East central	13.32	8.90	4.42	150
Southwest	17.98	10.42	7.56	172
South central	17.83	10.23	7.60	174
Southeast	14.56	9.72	4.84	150
<b>State</b>	<b>14.36</b>	<b>9.58</b>	<b>4.78</b>	<b>150</b>

**Total Precipitation Percent of Mean  
September 1, 2006 to September 30, 2006**

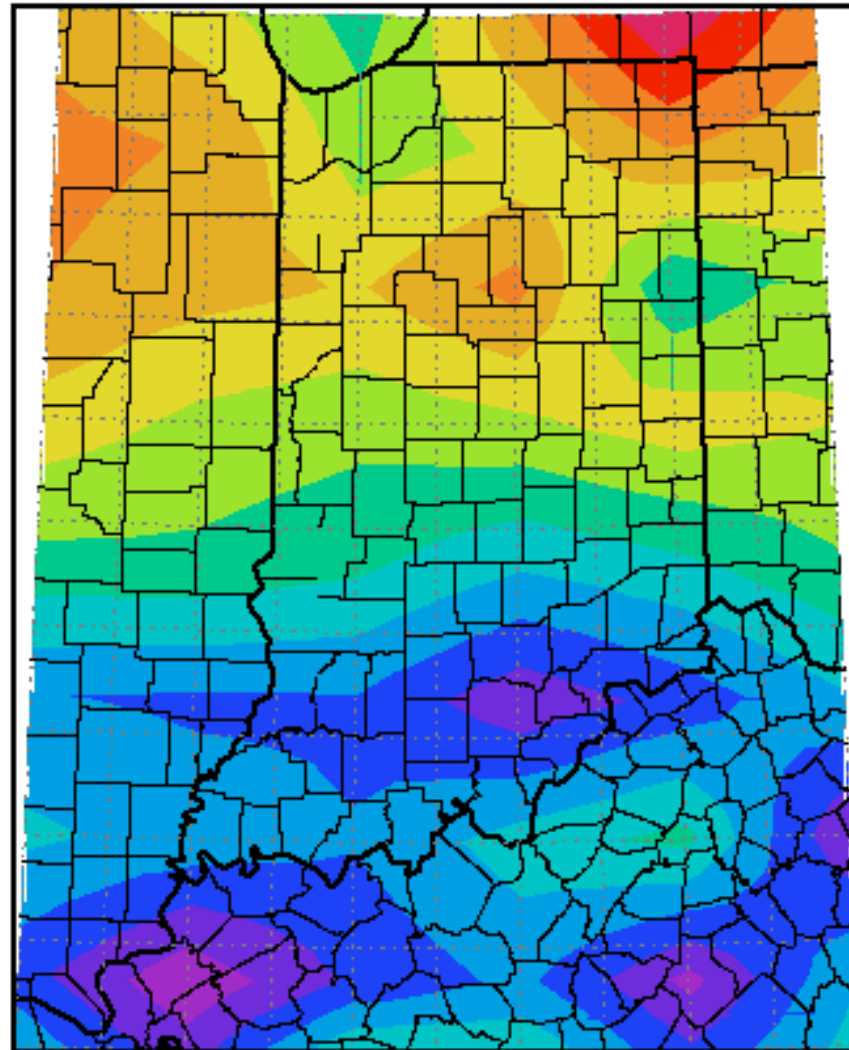


**Midwestern Regional Climate Center**

**Illinois State Water Survey**

**Champaign, Illinois**

**Average Temperature Departure from Mean in Degrees F  
September 1, 2006 to September 30, 2006**

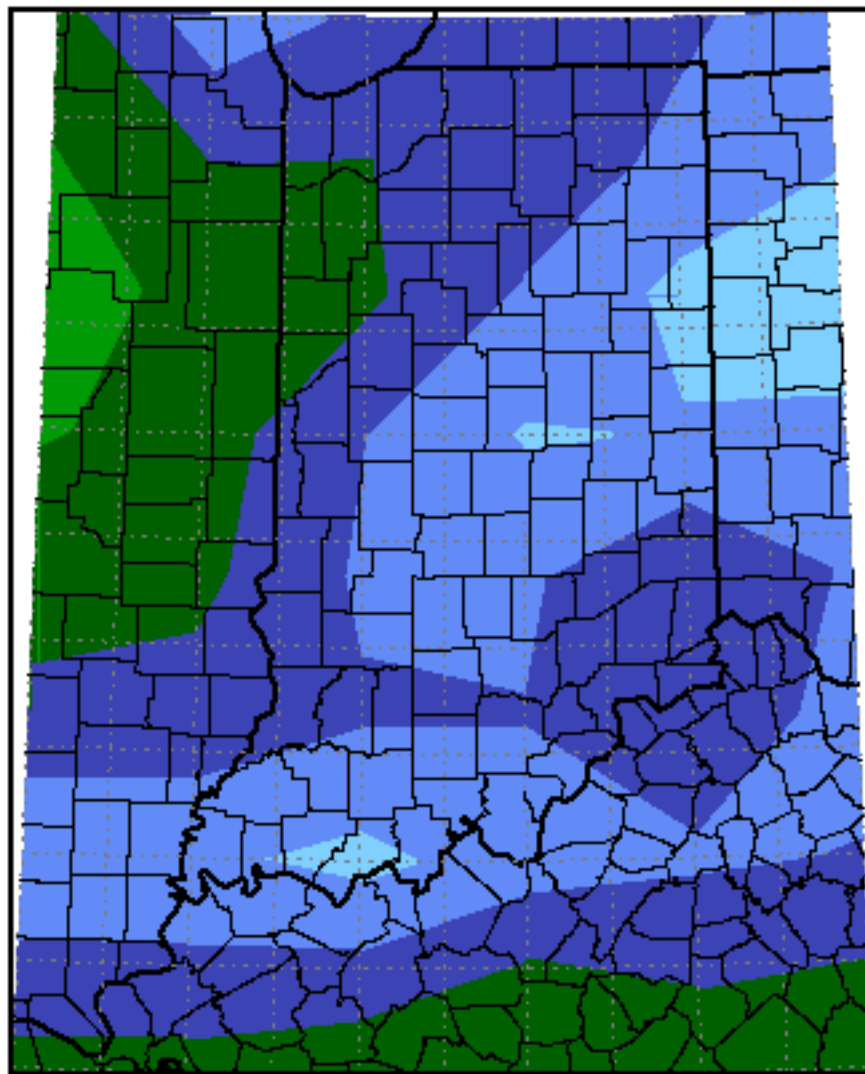


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**Illinois State Water Survey**

**Champaign, Illinois**

**Total Precipitation Percent of Mean  
October 1, 2006 to October 31, 2006**

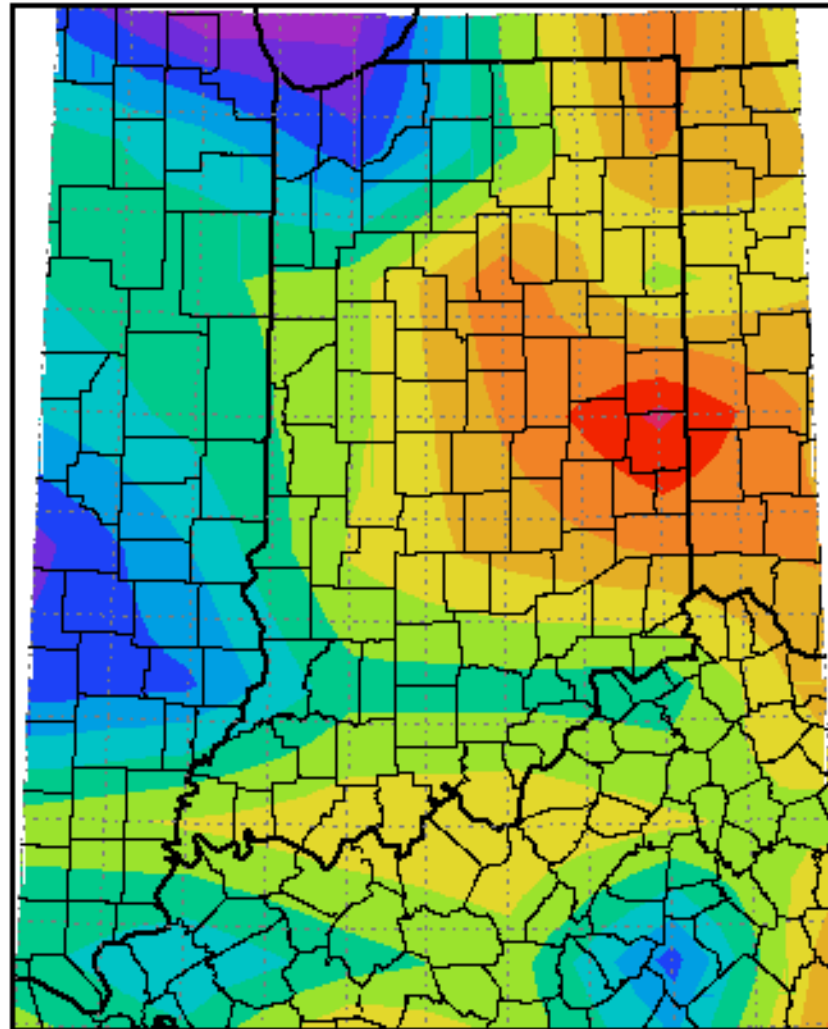


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Champaign, Illinois

**Average Temperature Departure from Mean in Degrees F  
October 1, 2005 to October 31, 2006**



-4.2 -4 -3.8 -3.6 -3.4 -3.2 -3 -2.8 -2.6 -2.4 -2.2

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**Champaign, Illinois**

# Summary of 2006

- Nationwide, 2006 was the warmest year in history. (global warming, El Niño)
- In Indiana:
  - Cool, wet spring.... Fruit set problems, Phomopsis infections
  - Warm summer, with rains prior and during harvest.... Downy mildew and fruit rot problems
  - Cool, wet fall.... Fruit ripening delayed

# Research Wine Tasting

Featuring:

- New New York varieties:
  - Corot noir (Co-row n'wah)
  - Noiret (N'wah-ray)
  - Valvin Muscat (Val-ven mus-cat)
  - NY 76.848.03
- Minnesota Varieties
  - Frontenac
  - Frontenac gris
  - LaCrescent

# 2007 Wine Grape Symposium

## Purdue Research Wine

### Flight 1 Red

Cabernet Franc 26338A  
Corot Noir 26540A  
Noiret 26555A  
Red Blend 26563

### Flight 2 Blush

Noiret 26555B  
Frontenac 26536  
Norton 26339  
Noiret/Traminette 26325C

### Flight 3 White

NY76.848.03 26542  
Traminette HC 26550  
LaCrescent 26520  
Frontenac Gris 26522

### Flight 4 Muscat Valvin

26319A1 std white  
26319A2 std white 10% RS  
26319C Dried  
26319B Frozen