Vintage 2008:
Umpqua Valley Reference Vineyard Report













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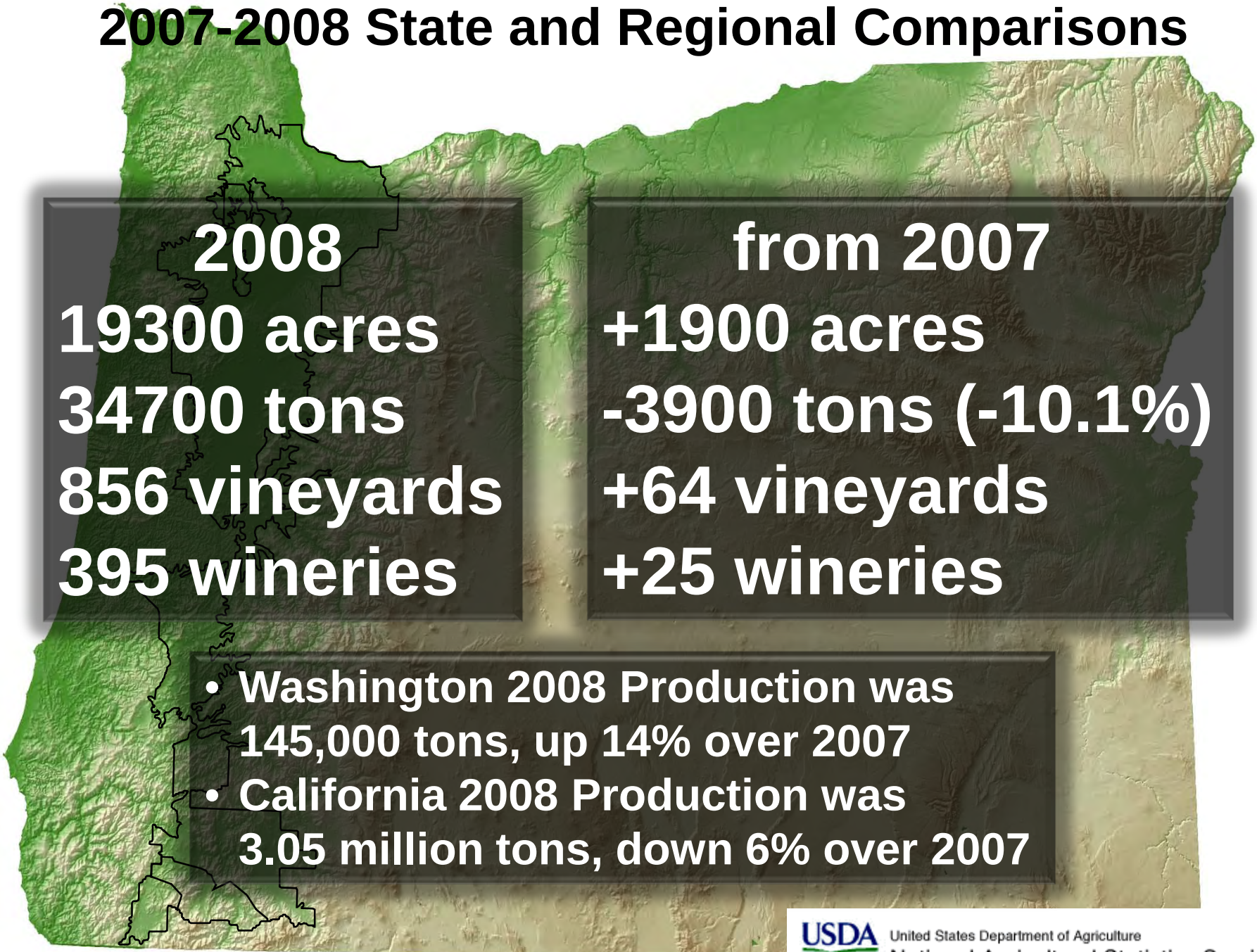
Deedy Parker, President

Outline of Talk

- Oregon and Regional Acreage and Production Overview
- Vintage 2008
  - Weather/Climate Overview
  - Phenology Overview
  - Composition Overview
- Summary, Forecast, and Future

Oregon Acreage and Production

2007-2008 State and Regional Comparisons

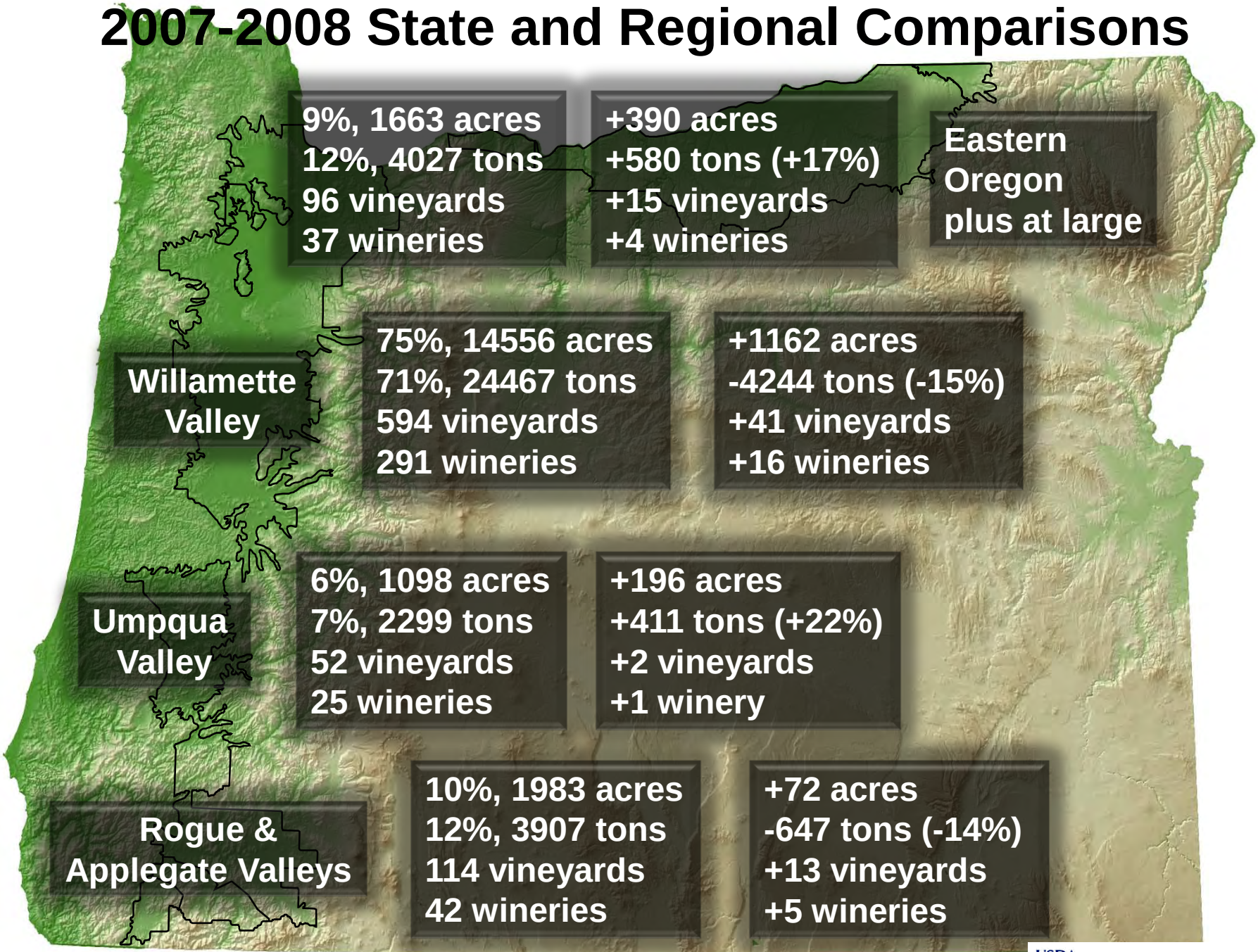


2008	from 2007
19300 acres	+1900 acres
34700 tons	-3900 tons (-10.1%)
856 vineyards	+64 vineyards
395 wineries	+25 wineries

- Washington 2008 Production was 145,000 tons, up 14% over 2007
- California 2008 Production was 3.05 million tons, down 6% over 2007

USDA United States Department of Agriculture
National Agricultural Statistics Service

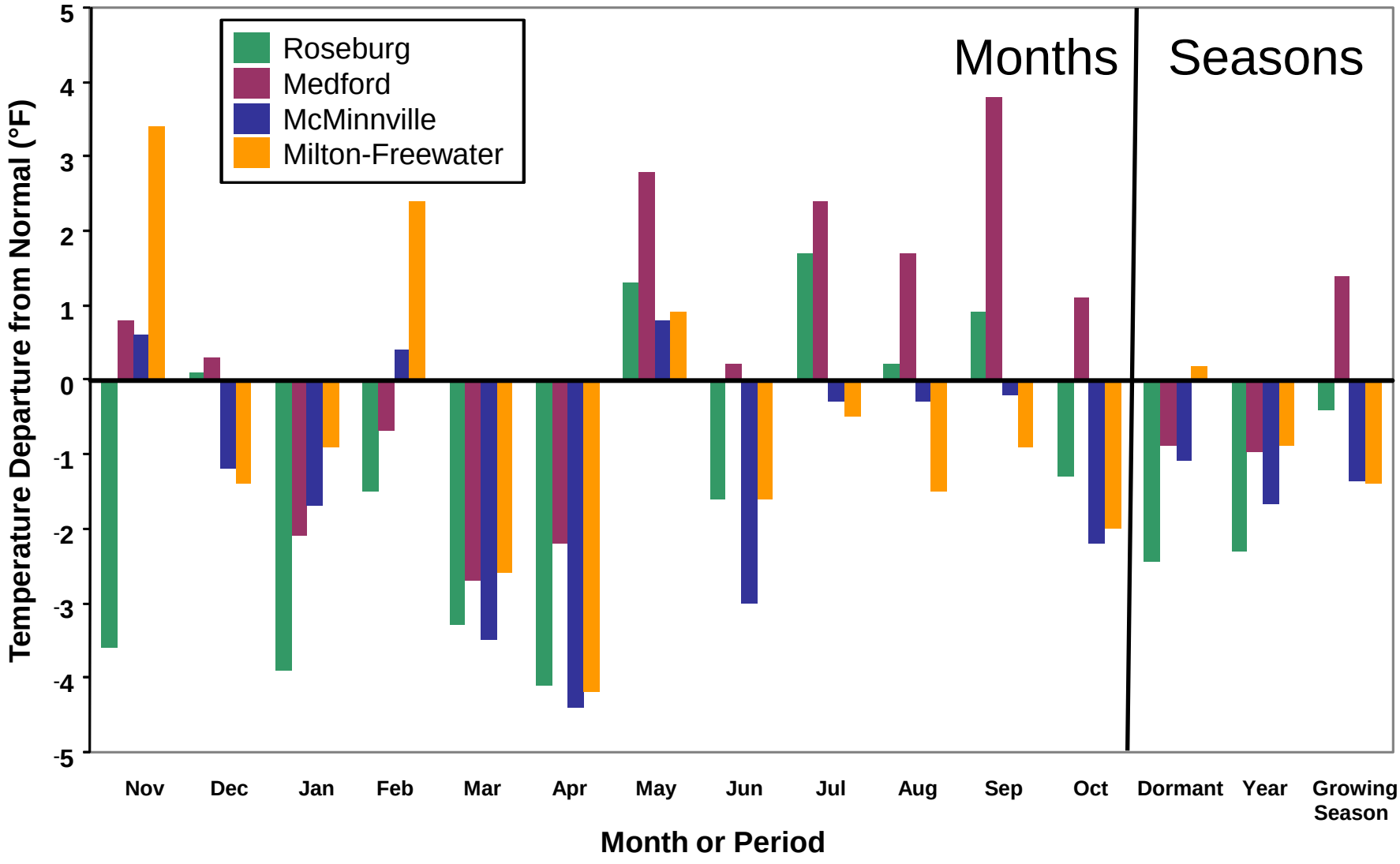
2007-2008 State and Regional Comparisons



USDA United States Department of Agriculture
National Agricultural Statistics Service

Oregon Wine Region Climates 2008

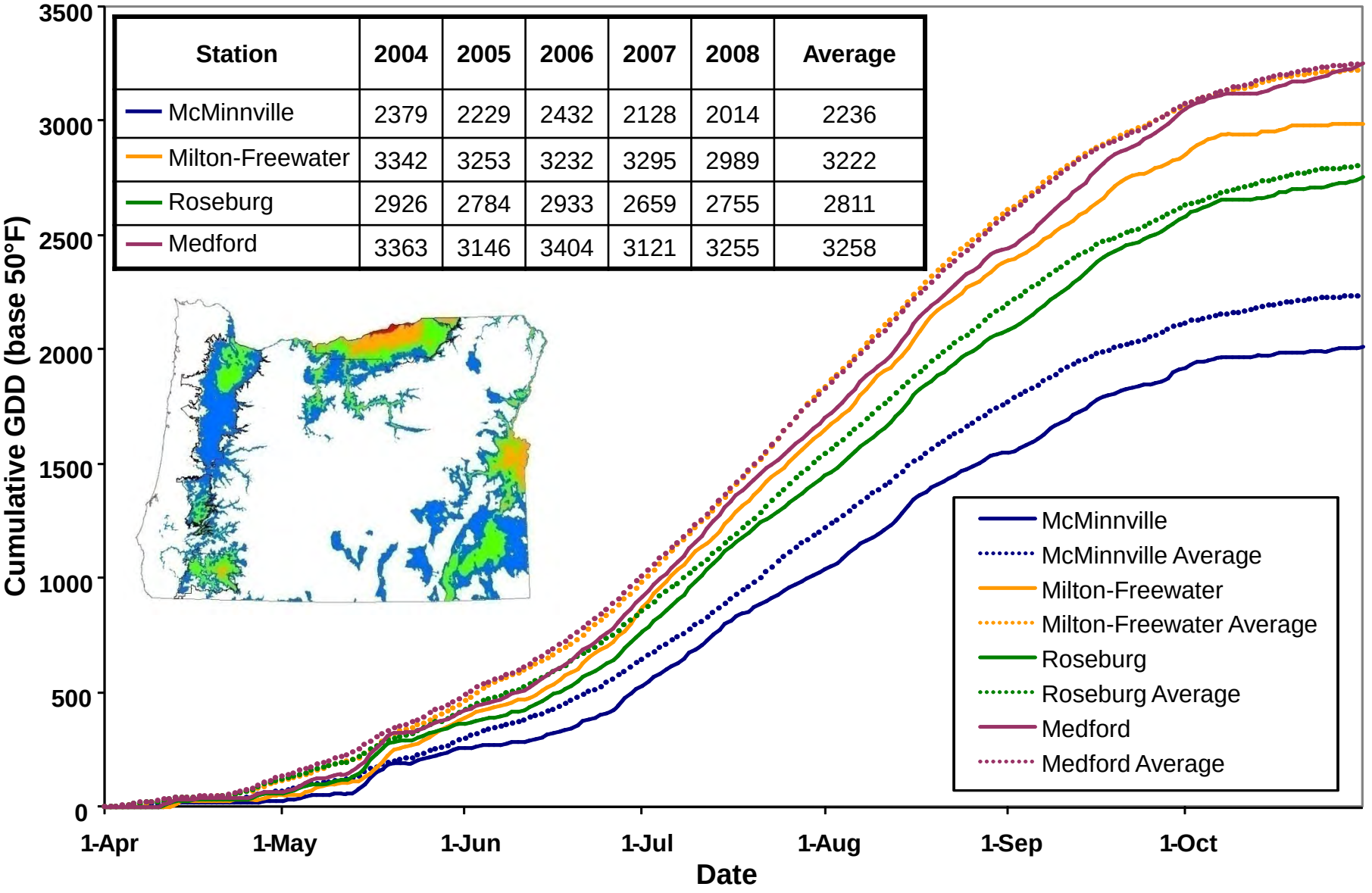
2007-08 Statewide Wine Growing Region
Monthly & Seasonal Temperature Departures from Normal



This chart represents a summation of daily temperature departures by month, the dormant period (Nov-Mar), the year (Jan-Oct), and the growing season (Apr-Oct) from the NWS stations (www.noaa.gov)

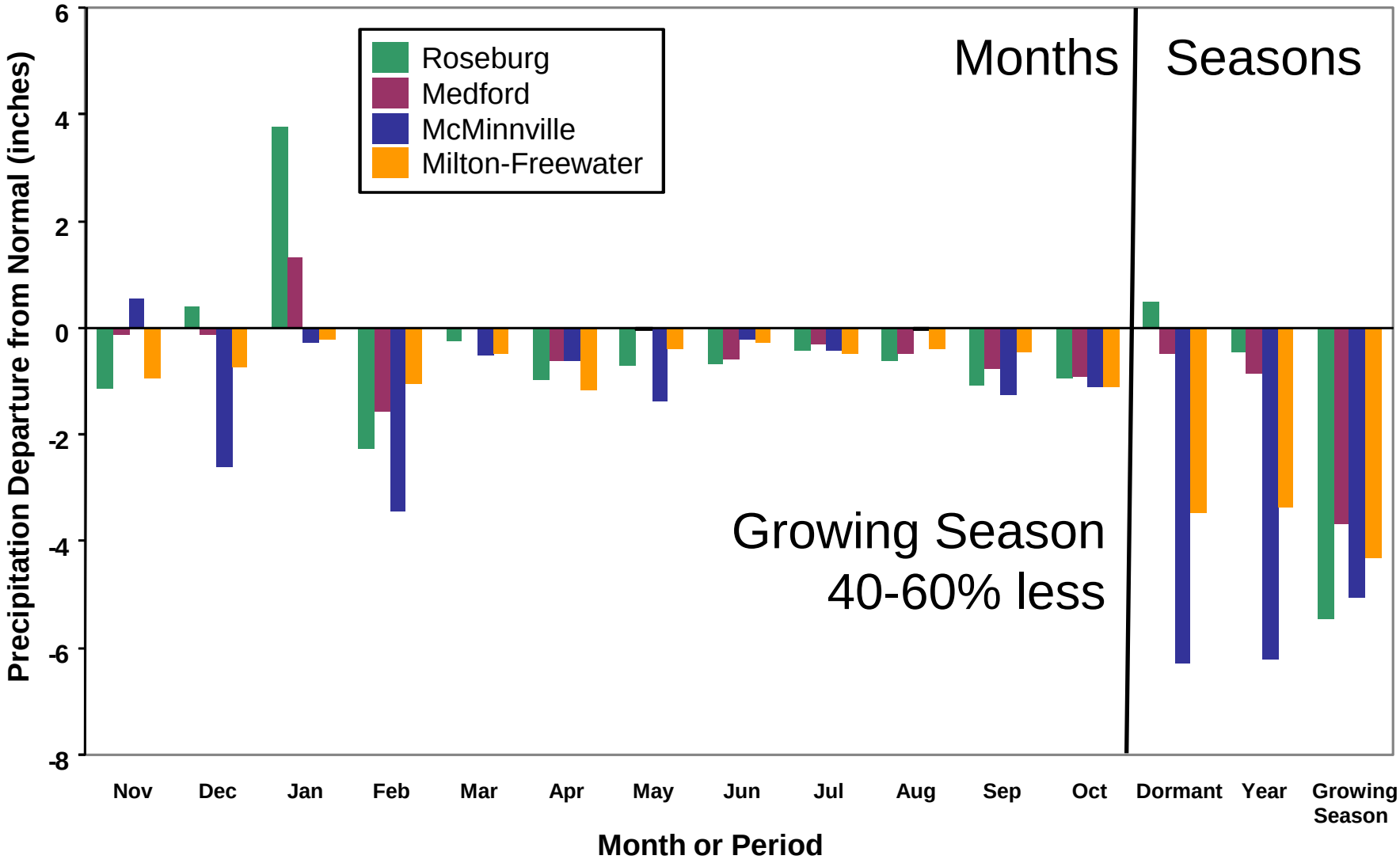
2008 Growing Season Cumulative Degree-Days

Station	2004	2005	2006	2007	2008	Average
McMinnville	2379	2229	2432	2128	2014	2236
Milton-Freewater	3342	3253	3232	3295	2989	3222
Roseburg	2926	2784	2933	2659	2755	2811
Medford	3363	3146	3404	3121	3255	3258



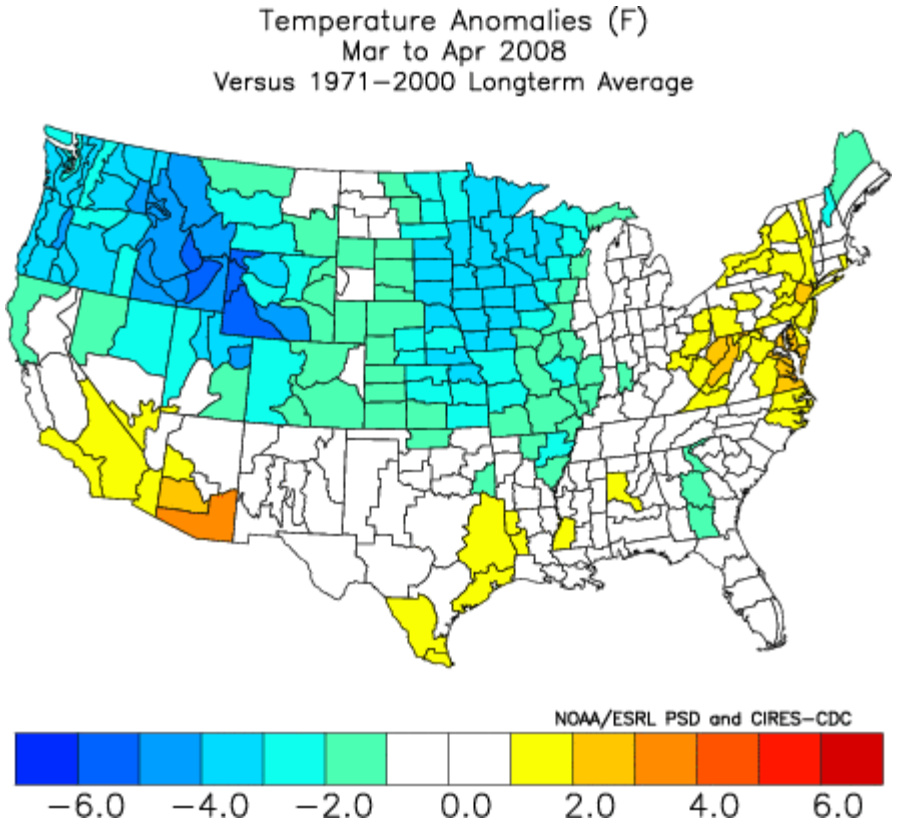
This chart represents the 2008 cumulative growing degree-days compared to the five year average for 2004-2008 for the growing season (Apr-Oct) from the NWS stations (www.noaa.gov)

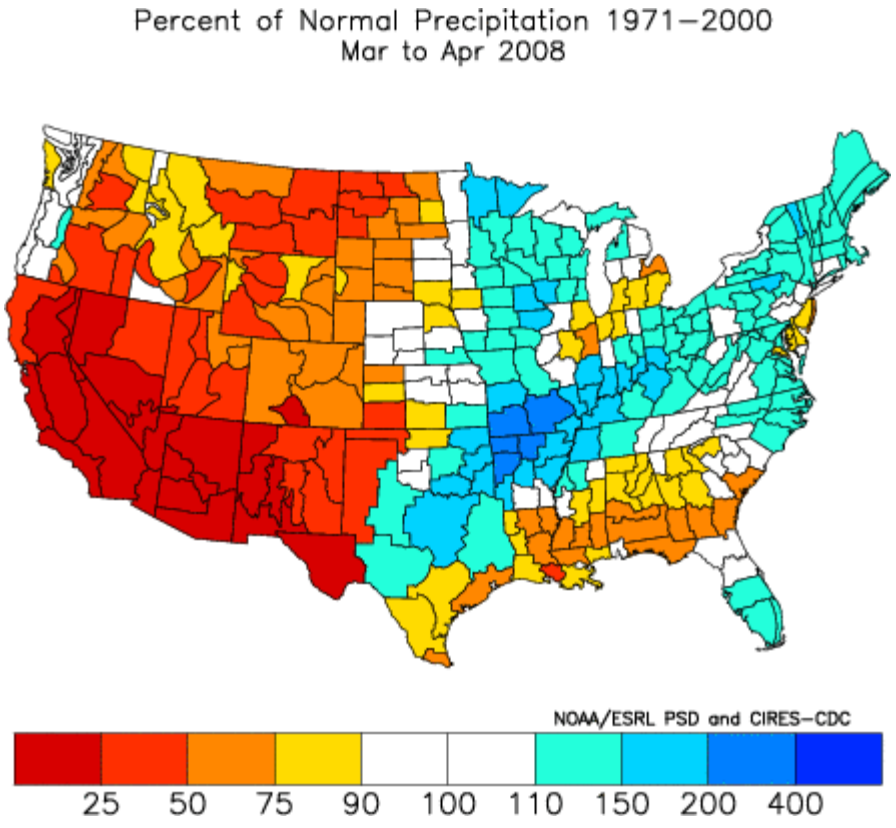
2007-08 Statewide Wine Growing Region
Monthly & Seasonal Precipitation Departures from Normal



This chart represents precipitation departures by month, the dormant period (Nov-Mar), the year (Jan-Oct), and the growing season (Apr-Oct) from the NWS stations (www.noaa.gov)

US Temperature Anomalies and Precipitation % of Normal for 2008





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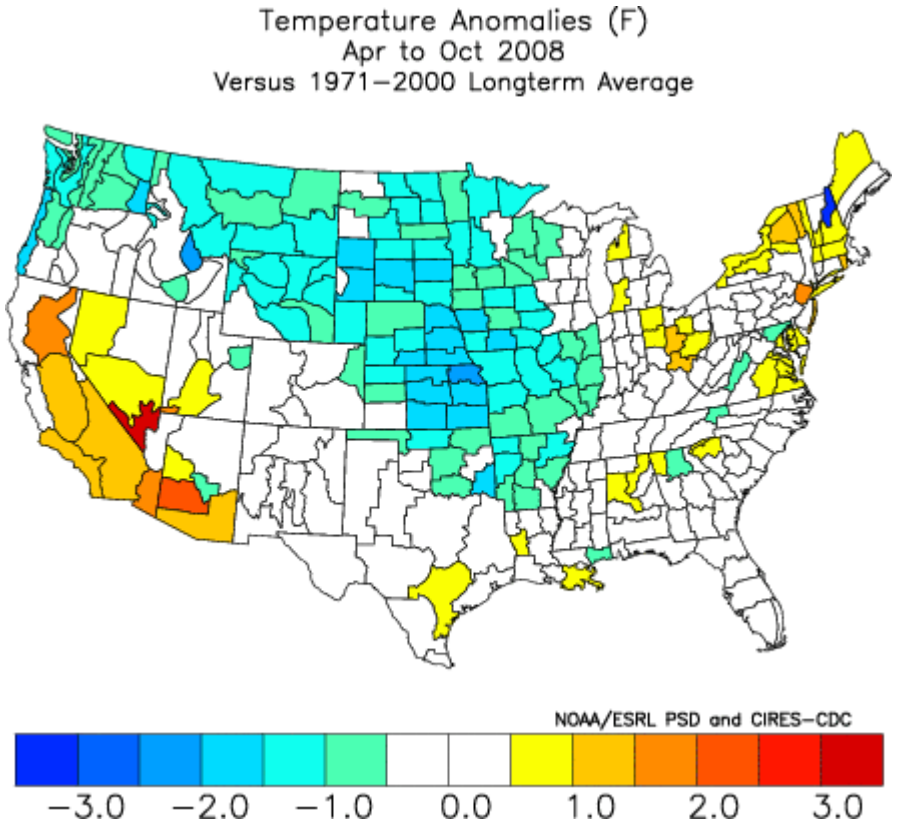

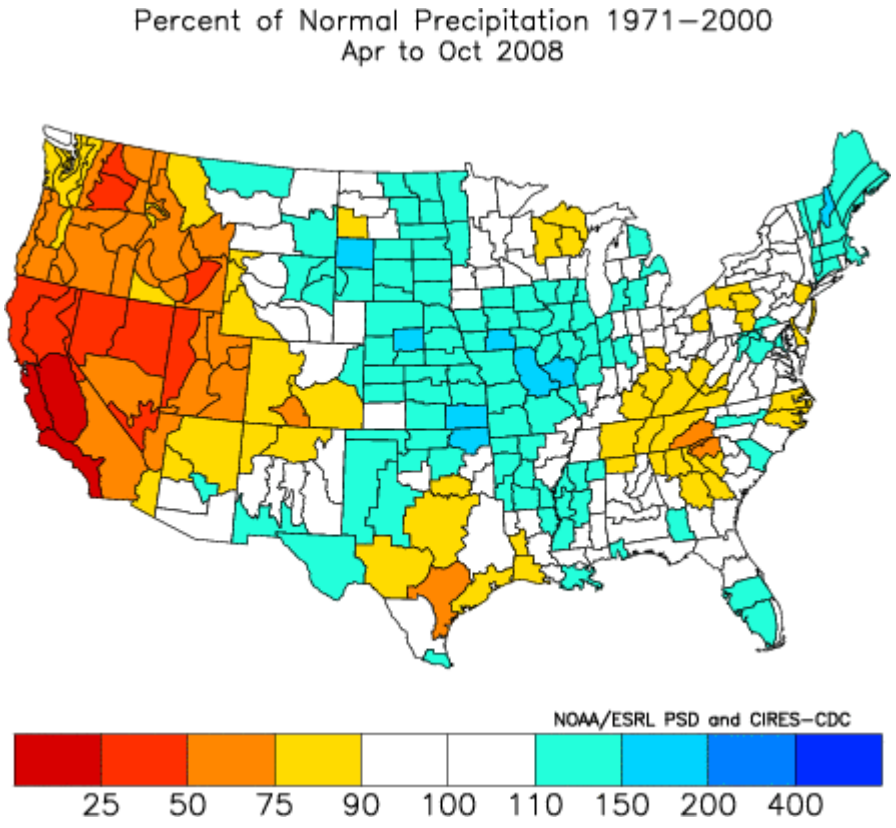

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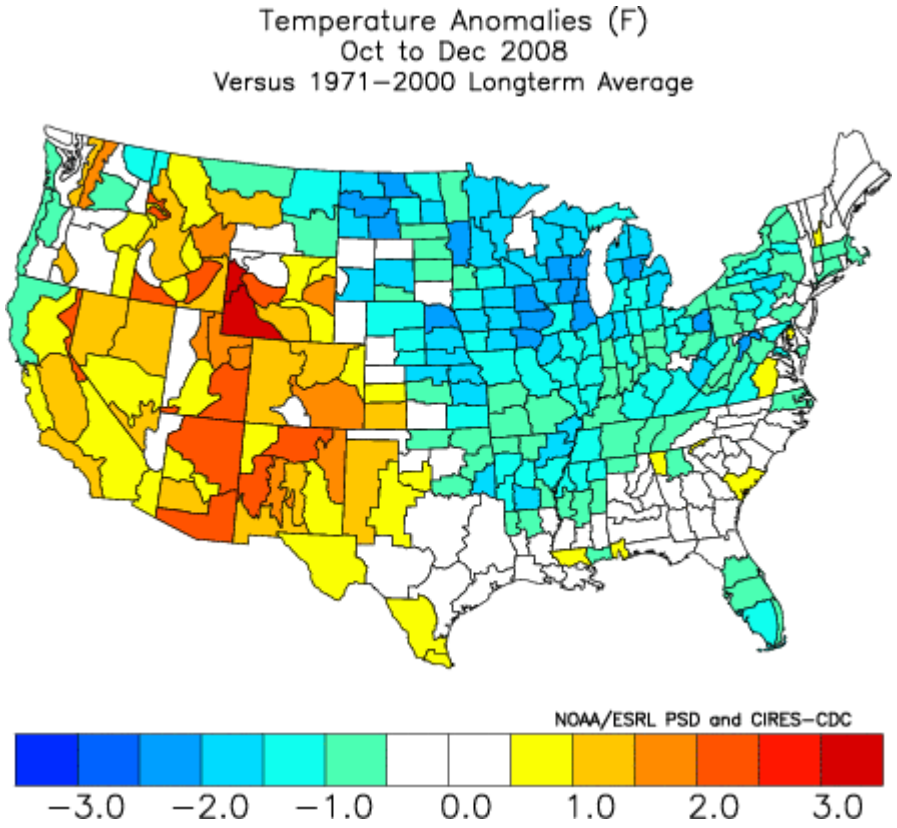
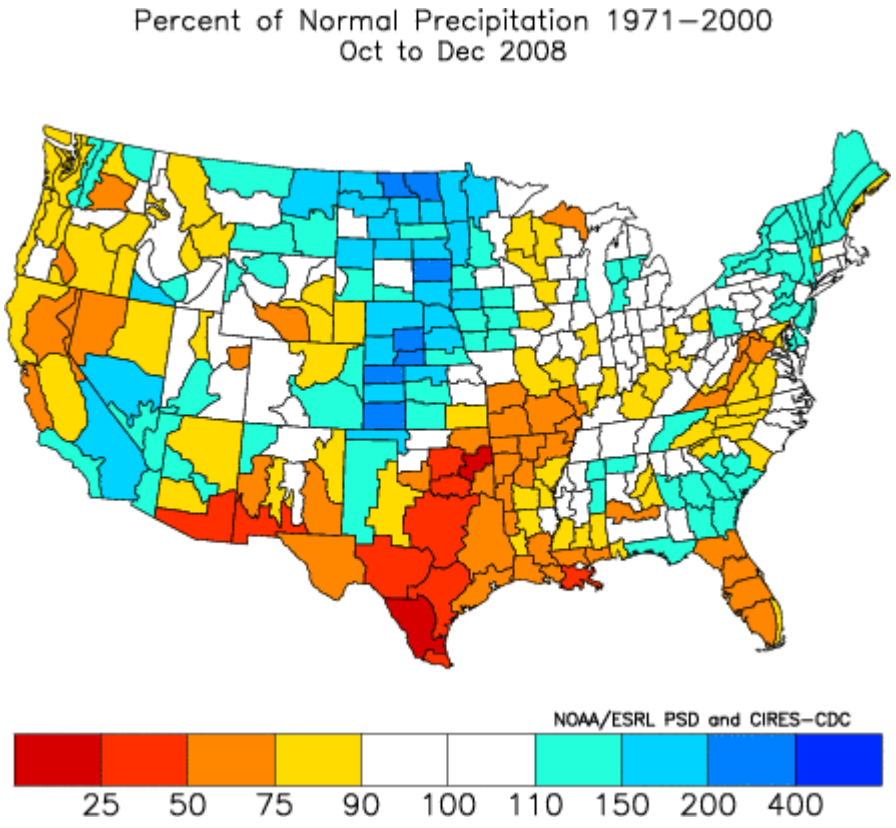
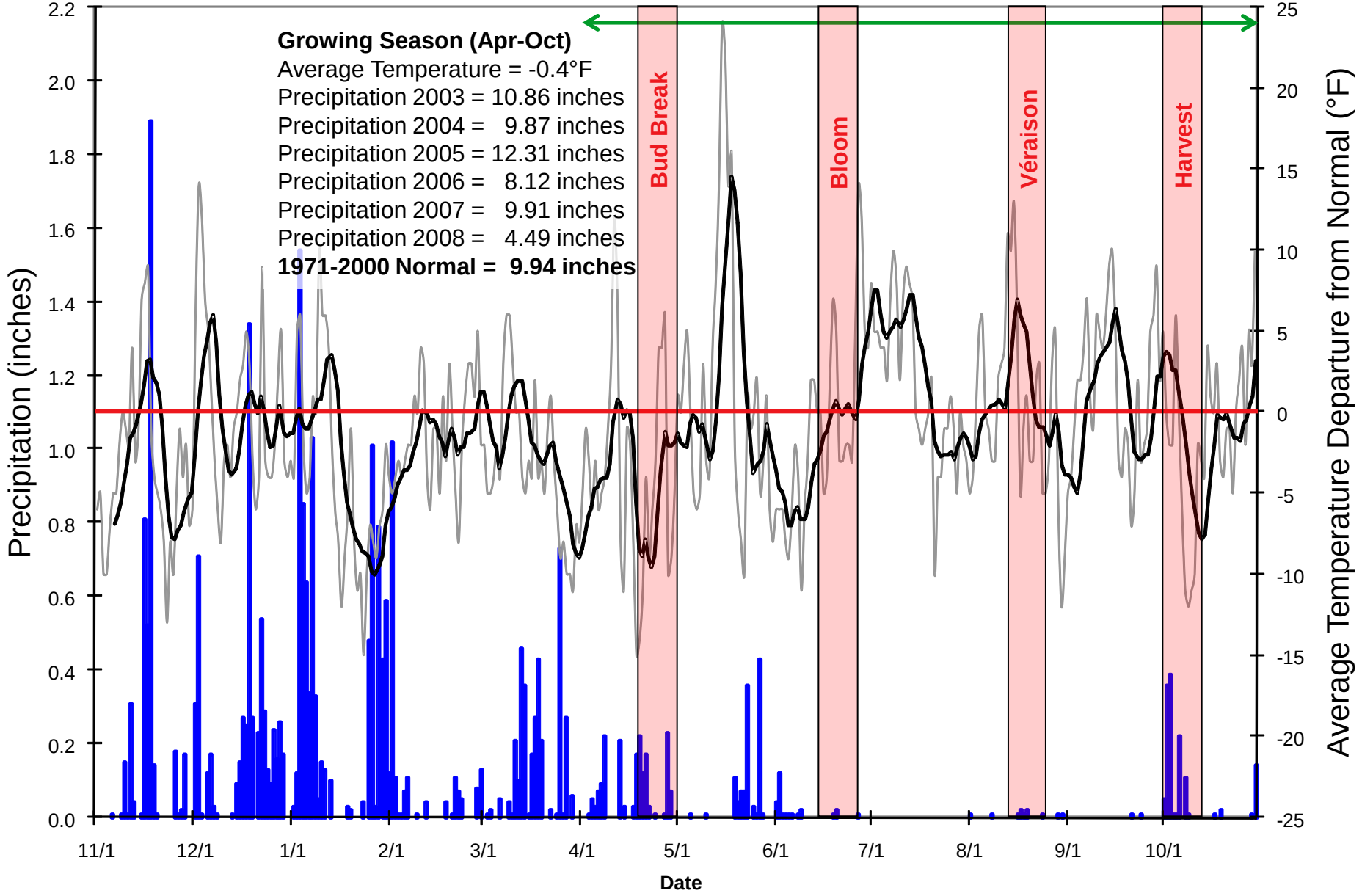
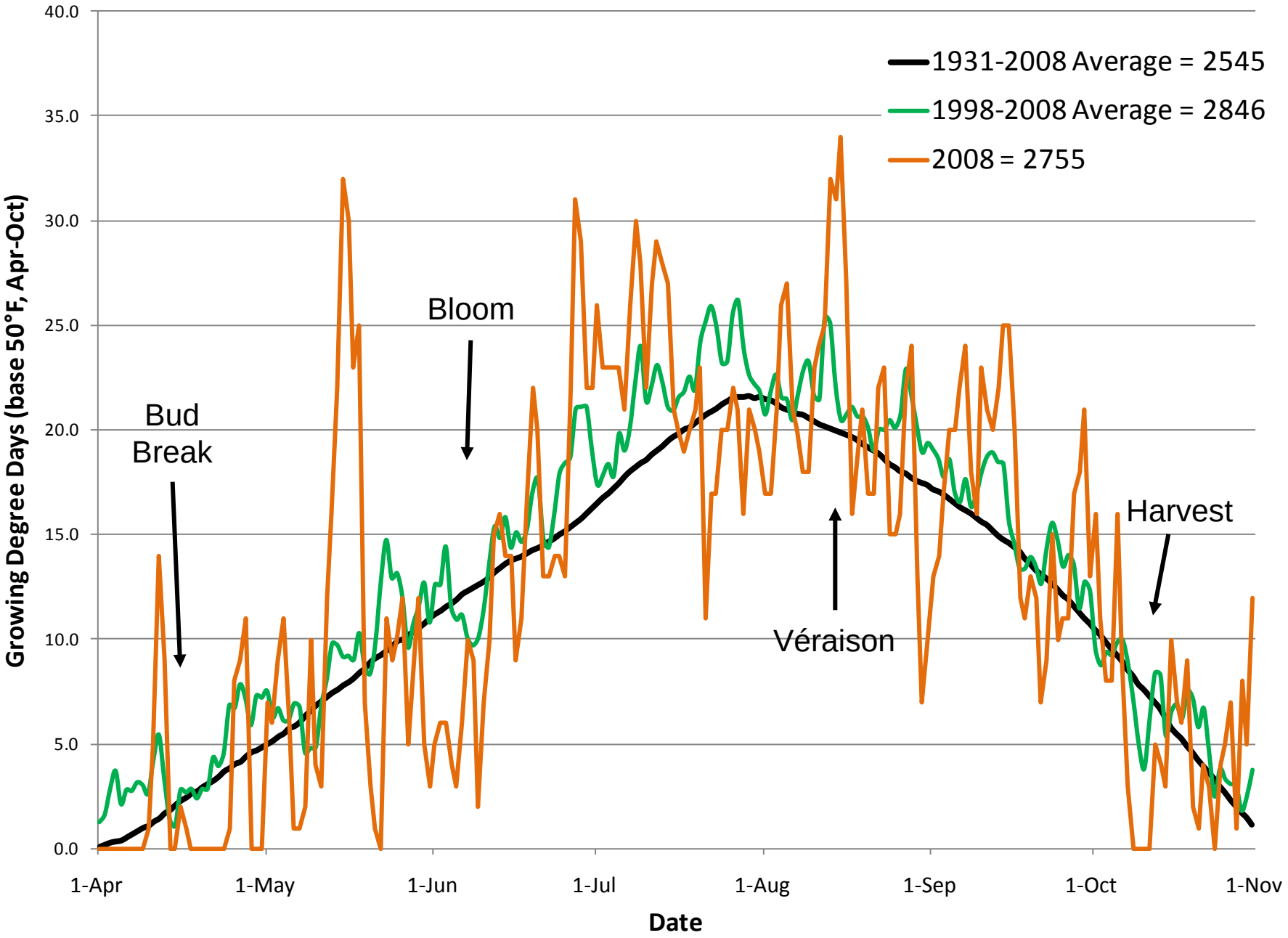




Roseburg 2008 – Temperature Departures from Normal and Precipitation

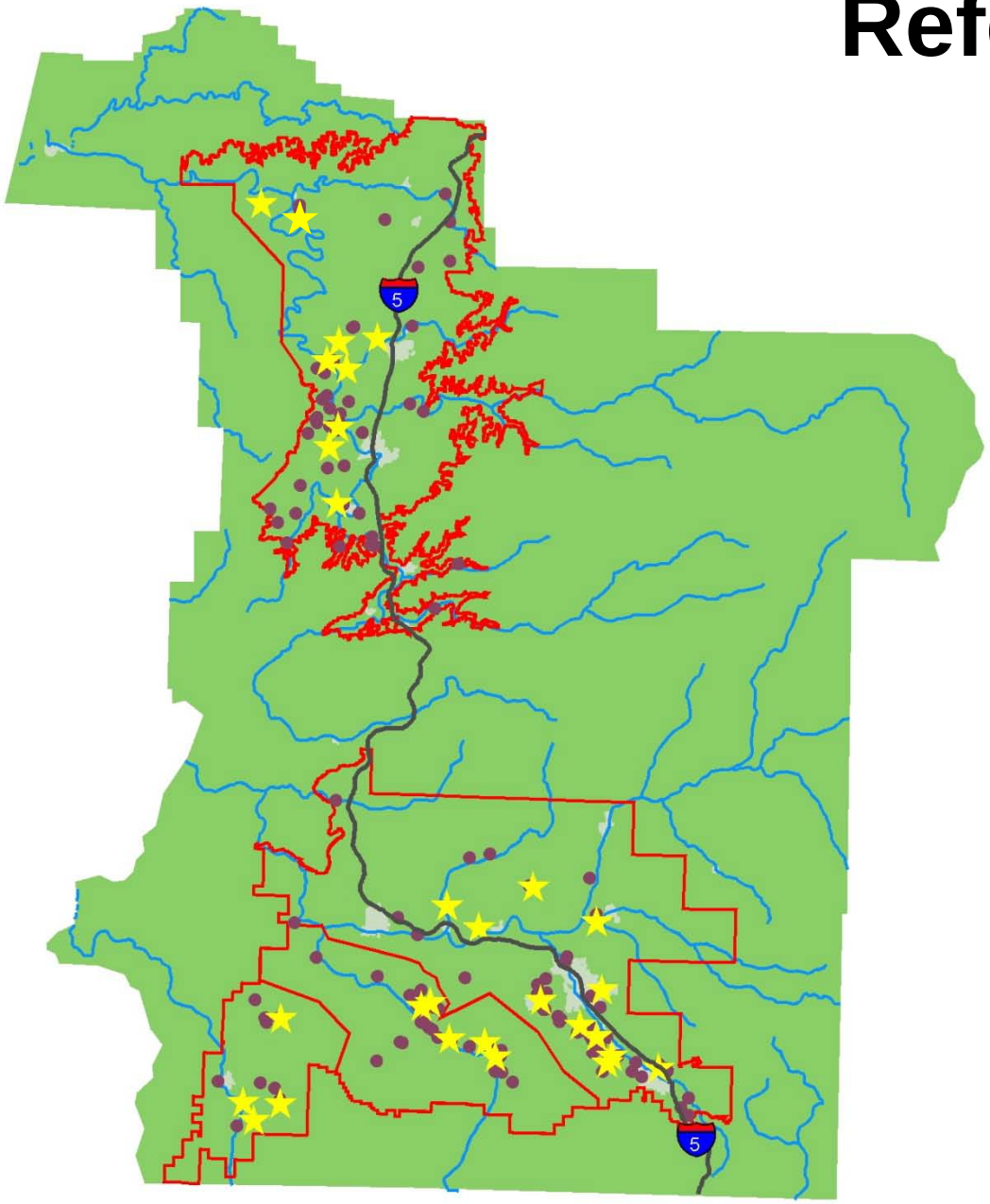


Roseburg 2008 – Growing Degree-Days (Apr-Oct)



Reference Vineyard Vintage 2008

Reference Vineyards



Established:

Rogue and Applegate Valleys
20 Vineyards in 2003

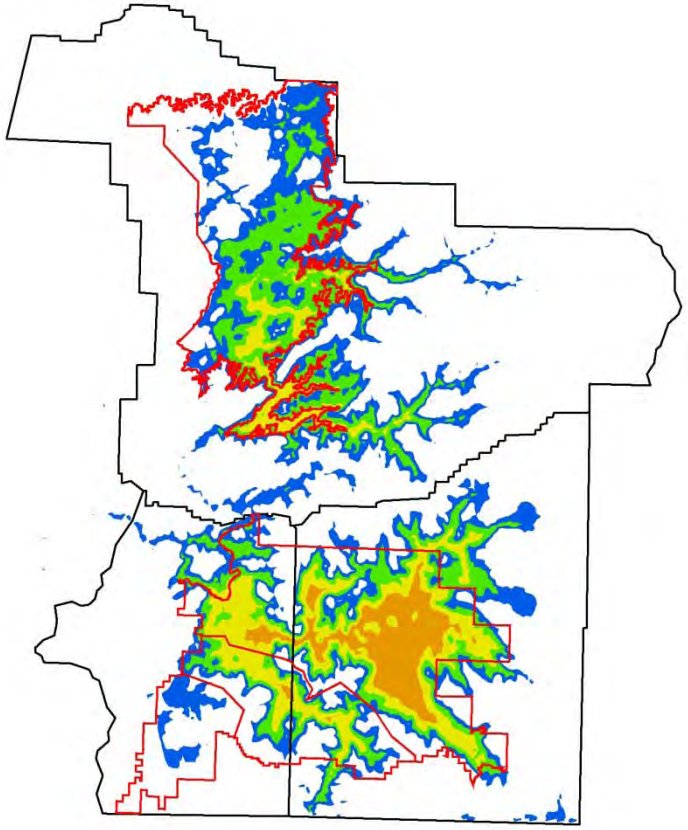
Umpqua Valley
9 Vineyards in 2004

Purpose:

Develop a baseline understanding of temporal and spatial variations in climate, plant growth potential, and fruit ripening characteristics

Umpqua Reference Vineyards 2004-08
Growing Degree-Days (Apr-Oct)

Statistic	2005	2006	2007	2008	Average
Mean	2314	2458	2144	2286	2301
Std Dev	227	283	290	252	263
Maximum	2532	2840	2484	2521	2594
Minimum	1821	1913	1626	1717	1769
Range	711	927	858	804	825



Regional 2004-08
Growing Degree-Days (Apr-Oct)

Region	2005	2006	2007	2008	Average
Bear Creek	2601	2913	2702	2738	2739
Valley of the Rogue	2510	2739	2625	2567	2610
Applegate	2437	2590	2427	2473	2482
Illinois	2207	2424	2165	2223	2255
Umpqua	2314	2458	2144	2286	2301

2008 Growing Season Temperature Characteristics and Extremes

Variable	Mean	Std. Dev.	Max	Min	Range
Average Temperature	59.7°F	1.5°F	62.0°F	56.8°F	5.2°F
Maximum Temperature	76.7°F	2.2°F	78.7°F	72.1°F	6.6°F
Minimum Temperature	46.0°F	0.5°F	46.7°F	45.3°F	1.4°F

Extremes

Average Absolute Maximum = 107.2°F
# of days > 95°F = 19
(Max = 31, Min = 7)

Average Absolute Minimum = 28.5°F
# of days < 32° = 7
(Max = 10, Min = 4)

Last Spring Frost – April 20th (+/- 7 days)
First Fall Frost – October 11th (+/- 1 day)

2008 Growing Season Temperature Characteristics and Extremes

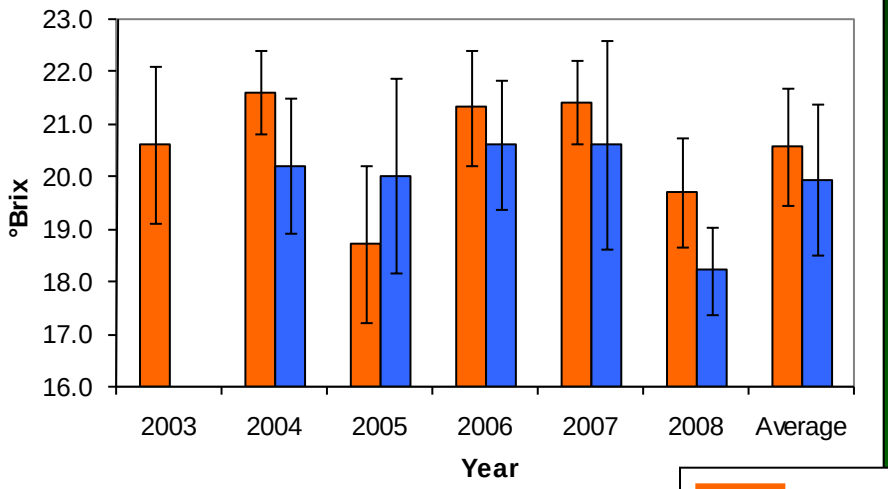
Comparison with Prior Years

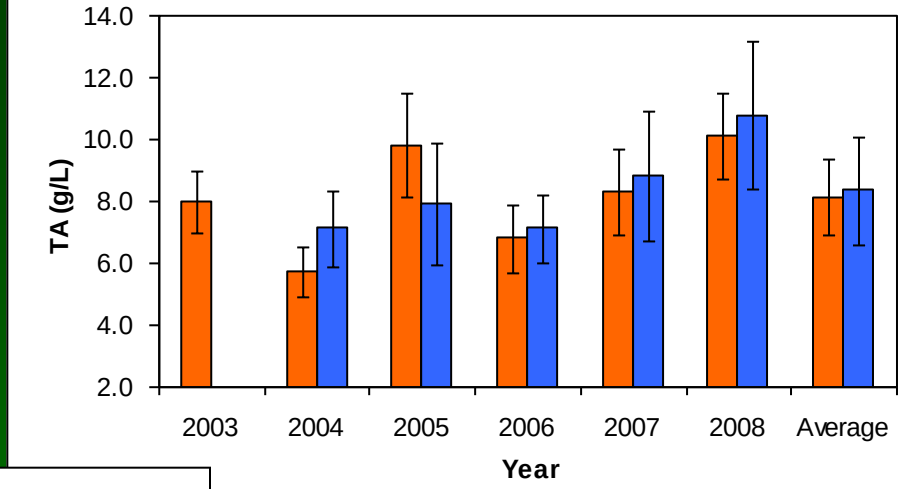
Variable	2005	2006	2007	2008	Average
GrDD	2314	2458	2144	2286	**2300**
Tmax	106.7	110.2	103.7	107.2	**107.0**
# of Days > 95°F	10	24	11	19	**16**
Tmin	30.1	23.3	28.5	24.2	**26.5**
# of Days < 32°F	2	4	2	7	**4**
Last Spring Frost	14-Apr	27-Mar	20-Apr	4-Apr	**8-Apr**
First Fall Frost	25-Sep	26-Oct	27-Oct	11-Oct	**14-Oct**

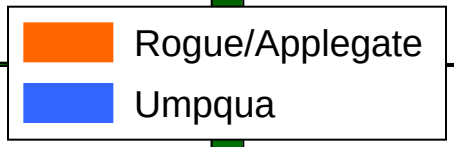
Grapevine Growth Event Dates and Intervals

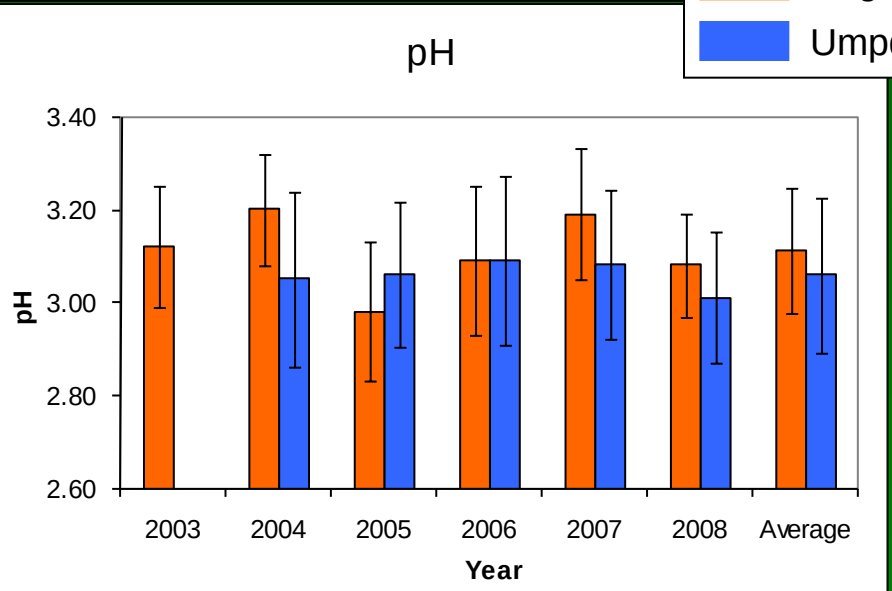
Event or Interval	*2004*	*2005*	*2006*	*2007*	*2008*	*Average*
Bud Break 	4/1 7 days	4/2 11 days	4/22 4 days	Apr 9 7 days	Apr 22 8 days	**Apr 11** 7 days
Flowering 	6/5 5 days	6/13 7 days	6/14 5 days	June 9 7 days	June 23 6 days	**June 12** 6 days
Véraison 	8/13 7 days	8/14 10 days	8/14 9 days	Aug 12 9 days	Aug 19 9 days	**Aug 14** **9** days
Harvest 	10/5 9 days	10/10 12 days	10/8 9 days	Oct 7 10 days	Oct 15 9 days	**Oct 9** 10 days
Bud Break-Flowering	65 days 7 days	76 days 14 days	54 days 6 days	61 days 8 days	64 days 6 days	**64 days** 8 days
Flowering-Véraison	68 days 6 days	61 days 8 days	62 days 8 days	63 days 8 days	59 days 6 days	**63 days** 7 days
Véraison-Harvest	55 days 11 days	51 days 15 days	51 days 10 days	56 days 11 days	55 days 10 days	**54 days** 11 days
Bud Break-Harvest	185 days 13 days	194 days 13 days	168 days 8 days	175 days 13 days	174 days 11 days	**179 days** 12 days

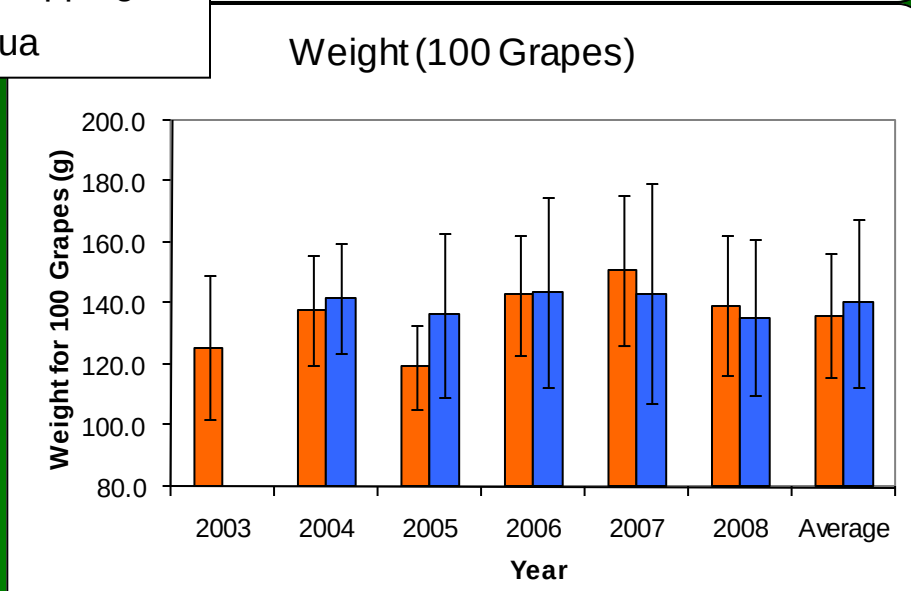
2003-2008 Sample Composition (Sept 13-15)



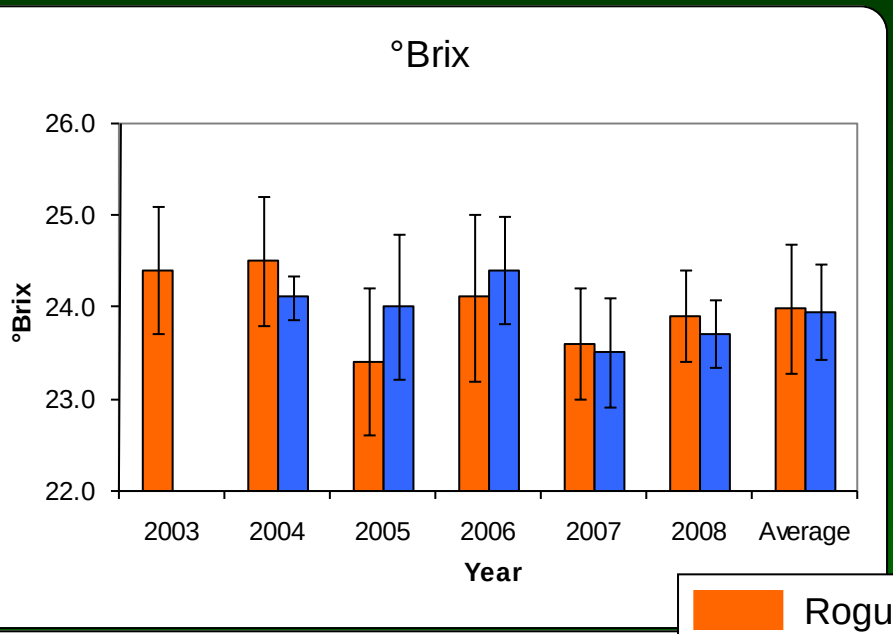


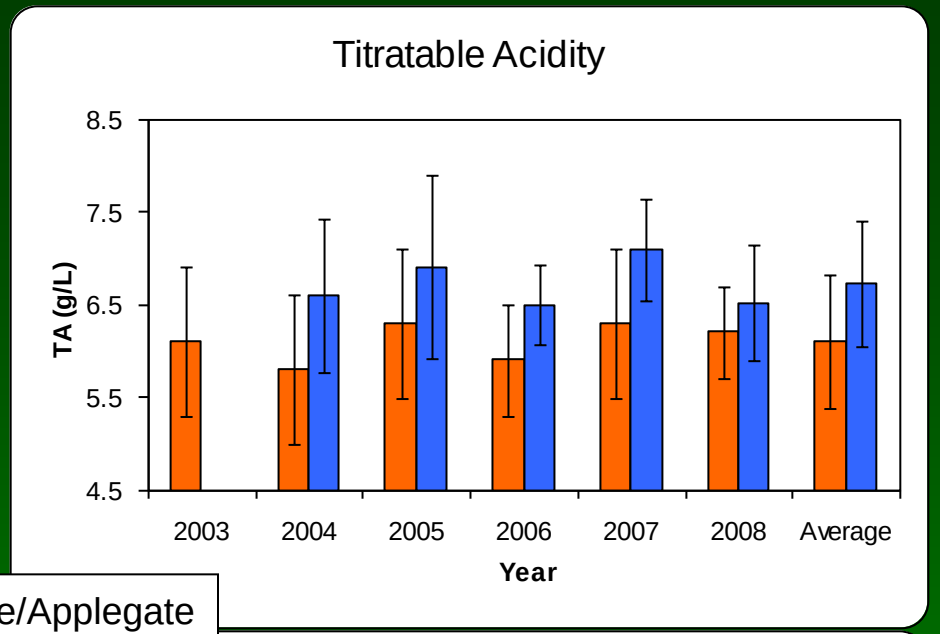


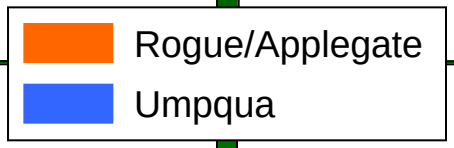


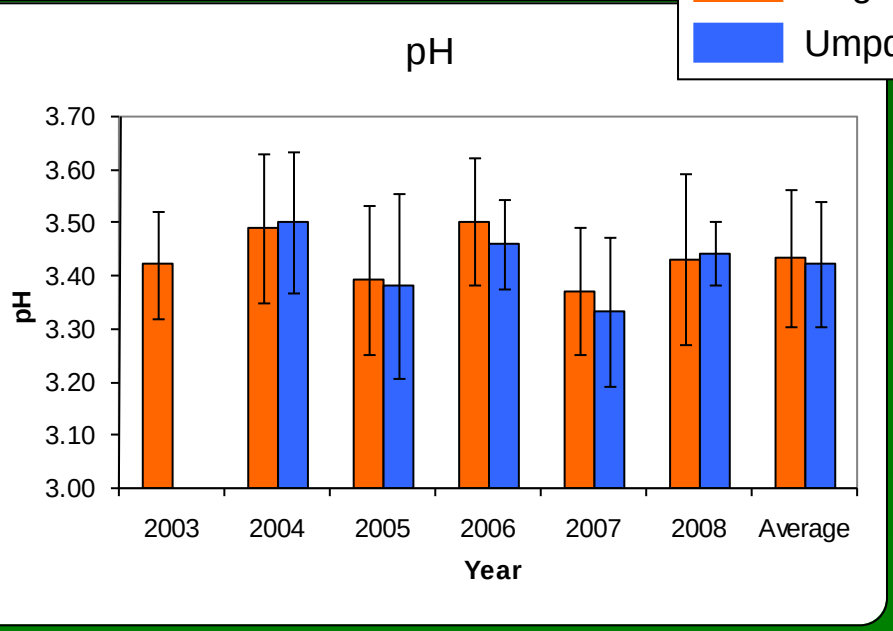


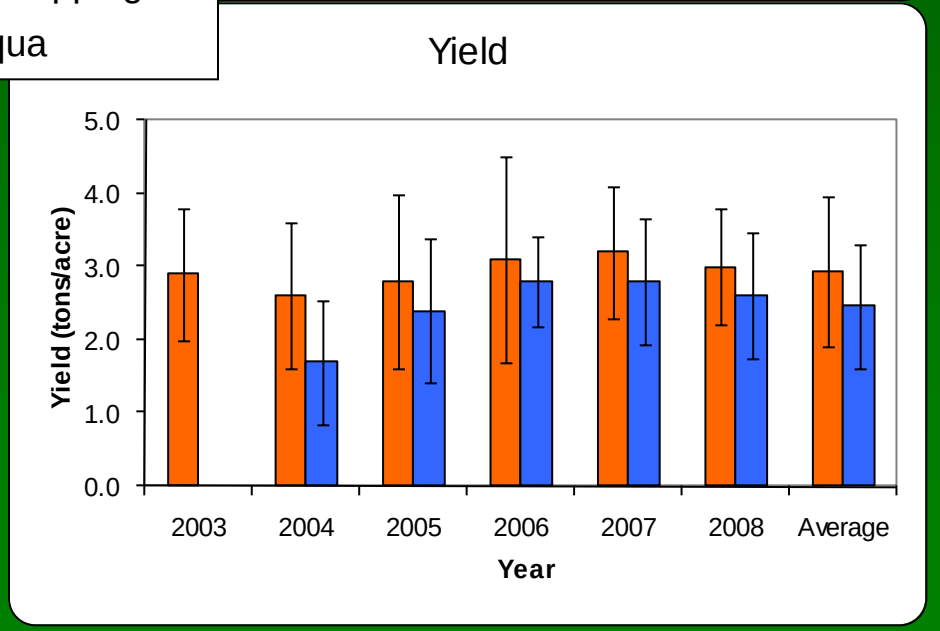
2003-2008 Harvest Composition











Vintage 2008 Summary

Weather/Climate

- 2008 started off as one of the coolest springs since the mid-1970s followed by one of the biggest heat spikes ever recorded in May, then a generally normal late summer with moderate swings between warm and cool periods, punctuated by some of the lowest temperatures that early in the fall on record (October 9-12)
- Rainfall during the growing season was ~40-60% down, with none to speak of during bloom and normal amounts during the early harvest period. Dry conditions have continued into winter.
- Growing season heat accumulation below normal north and east, near normal to above normal south

Phenology

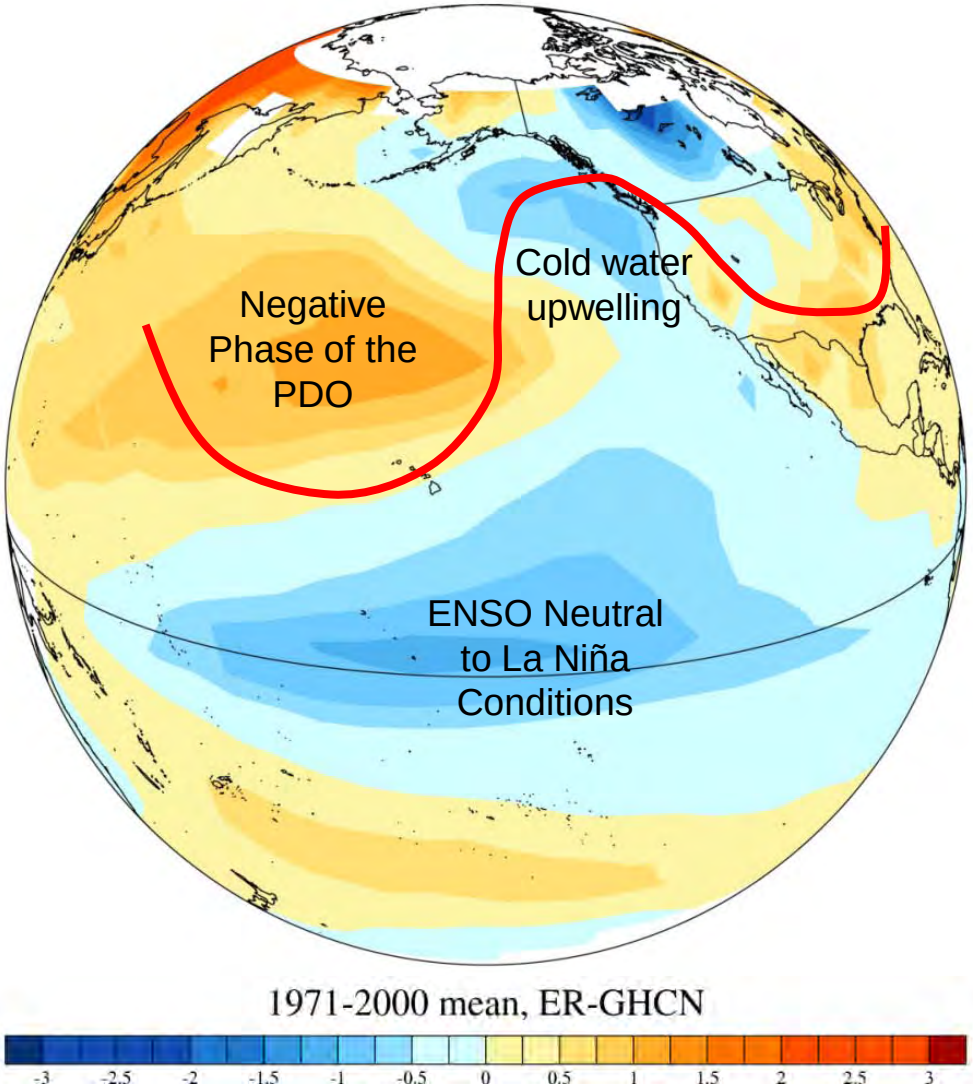
- Bud break and bloom 7-24+ days late, véraison and harvest nearly caught up but still later than normal on average

Composition and Yields

- °Brix – lower than normal; TA ↑, pH ↓, Yields regionally variable …
- Most say balanced wines, very good to great year

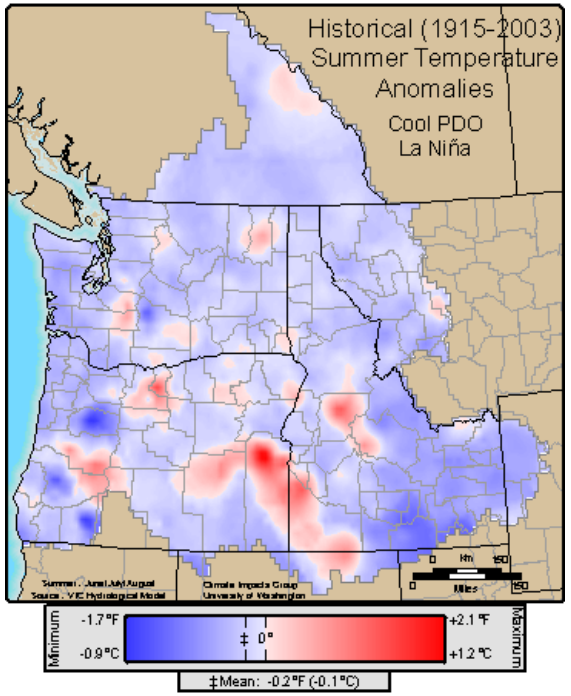
What’s in Store – Vintage 2009

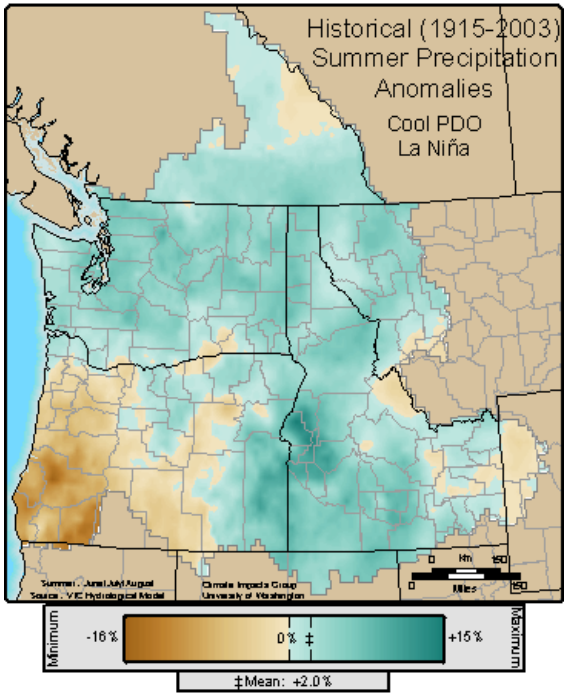
Current and Projected Pacific Ocean/North America Climate Variability Mechanisms



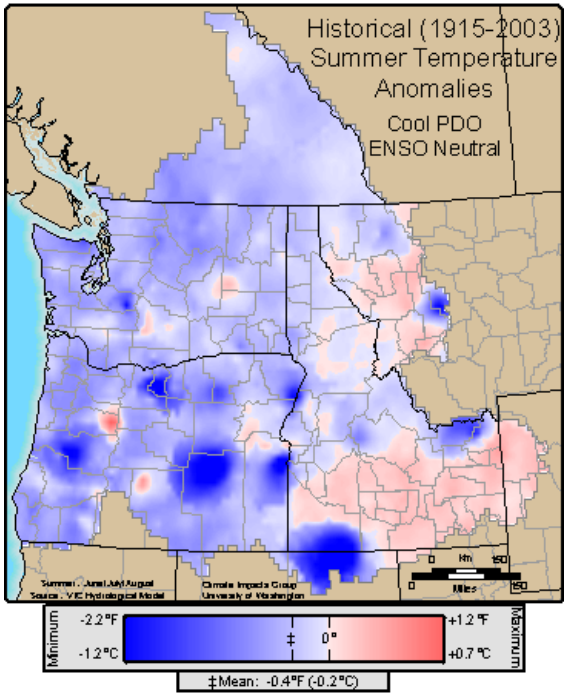
Two Likely Scenarios:

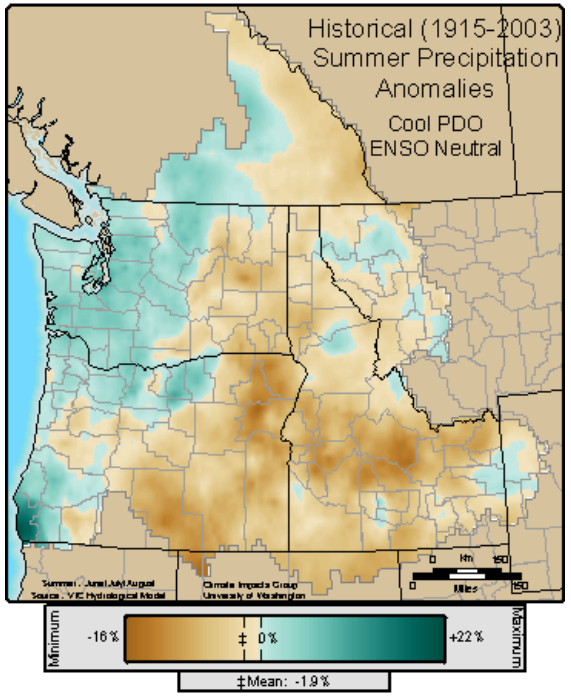
- Cold PDO-La Niña ENSO typically brings cooler summers to much of the PNW and wet conditions north and dry conditions south





- Cold PDO-Neutral ENSO typically brings cooler summers to much of the PNW and mixed wet-dry conditions





Spring/Summer 2009 Forecast

For Oregon in general:

- Similar to last year … La Niña-Cold PDO continues into spring, transitions in early summer
- Historically La Niña-Cold PDO conditions bring:
  - More variable conditions (wide swings)
  - Temperatures below normal in western Oregon (MAM), near average central-east, with average to below average precipitation statewide.
- Late spring-early summer (JJA) is projected to see slightly above average temperatures and average to below average precipitation statewide.

NWS Climate Prediction Center (www.cpc.ncep.noaa.gov)
NOAA-CIRES Climate Diagnostics Center (www.cdc.noaa.gov)

Future

- Project is funded by the OWB for the 2009 vintage, 2010?

Acknowledgements

- The Oregon Wine Board

- The Umpqua Valley Winegrowers Association
- All of the Participating Vineyards
- RoxyAnn Winery: Jack Day, Gus Janeway, Marika Belew, Matt Stephens, and Melissa McChesney