ASEV 5th Joint Burgundy-California - Oregon
Winemaking Symposium

Winemakers—Oregon
– Lynn Penner-Ash
– Harry Peterson-Nedry
Here We Are

45th Parallel

Oregon's Vineyards and AVAs

- Current Vineyards
- American Viticultural Areas
  - Walla Walla VA
  - Columbia Valley VA
  - Columbia Gorge VA
  - Willamette Valley VA
  - Umpqua Valley VA
  - Rogue Valley VA
  - Applegate Valley VA

Map by Alan Campbell, NW Vineyards
alan@nwwineyards.com
Pinot Wineries Are Here
The Oregon Industry at a Glance

Number of Wineries in 2007: 393
Number of Vinifera Vineyards in 2007: 792
  (includes Estate Vineyards associated with wineries)

Planted Vinifera Acreage in 2007: 17,400

Top 5 Varieties:
  Pinot noir: 9,858 planted acres
  Pinot gris: 2,588 planted acres
  Chardonnay: 972 planted acres
  Riesling: 710 planted acres
  Cabernet Sauvignon: 571 planted acres

Harvested Acreage in 2007: 13,800

2007 Total Production: 38,600 tons

U.S. Ranking for Number of Wineries: 3rd

Oregon Wine Sales in 2007: 1,711,532 cases
Wineries

Oregon Winery Count Over Time
Source: Oregon Agricultural Statistics Service

Number of Wineries

- Winery Count, TOTAL
- Winery Count, Crushing

Year: 1970 to 2006
Numbers: 5, 59, 74, 101, 132, 201, 247, 303, 350, 370
Vineyards

Oregon Vineyard Count Over Time
Source: Oregon Agricultural Statistics Service
Acreage by Variety

Oregon Winegrape Acreage by Key Variety

Source: Oregon Agricultural Statistics Service

2007 as % of 1997
- Pinot Noir: 324%
- Pinot Gris: 226%
- Riesling: 102%
- Chardonnay: 65%
- ALL: 223%

Acres


Pinot Noir
Pinot Gris
Chardonnay
White Riesling
Acreage, Total and Bearing

Oregon Winegrape Acreage, Total and Bearing
Source: Oregon Agricultural Statistics Service
Average Vineyard Size in Acres

Source: Oregon Agricultural Statistics Service

\[ y = 0.2679x + 14.363 \]

\[ R^2 = 0.5717 \]
Oregon Pinot Noir Yields per Acre Over Time
Source: Oregon Agricultural Statistics Service

Mean 1986-1997 = 2.34
1997 = 2.34
1998-2007 Mean =
Oregon’s Violent Beginnings, Recent in Geological Time

- **200 million years ago** - Oregon created by the colliding Pacific and North American plates.
  - The Willamette Valley, the Coastal Range that protects it from the Ocean and the intensely volcanic Cascades Mountains were created by uplift caused by that collision. This process continues today as Mount St. Helens, shows.
Cascadia’s geologic history - A thumbnail sketch of 6 big events:

- For example - Imagine the Hawaiian Islands rafting into the subduction zone...
The strata in the uplifted Coast Range were folded into a broad arch, with the oldest rocks in the center.

- 50-million year-old Siletz River Volcanics
- 40-million year-old diabase (basalt) intrusions
- 30-million year-old marine sandstone and mudstone
- 15-million year-old Columbia River Basalt
Willamette Valley Geology and Soils

Willamette Valley Vineyards, Soils, and AVAs
- Current Vineyards
- Geology and Soils:
  - Basalt Soils
  - Marine Sediment Soils
  - Ice Age Silt Soils
  - Glacial Flood Soils
- American Viticultural Areas:
  - Chehalem Mts (pending)
  - Ribbon Ridge (pending)
  - Yamhill-Carlton
  - Dundee Hills
  - McMinnville
  - Eola Hills (pending)
  - Willamette Valley

map by Alan Campbell, NW Vineyards
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Tasting of Two Vintages, Two Soils

Volcanic Soils

Dundee Hills AVA

Ocean Sedimentary Soils

Ribbon Ridge AVA  Yamhill-Carlton AVA

2005 Eyrie 2006 Domaine Drouhin

2005 RR 2006 Penner-Ash
Day length for three regions growing Pinot noir

![Graph showing day length for three regions]

- McMinnville
- Beaune
- Napa
Average monthly mean temperatures for three regions growing Pinot noir

Degrees Fahrenheit

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

McMinnville
Beaune
Average monthly precipitation for three regions growing Pinot noir

<table>
<thead>
<tr>
<th>Month</th>
<th>McMinnville (43.6)</th>
<th>Beaune (28.4)</th>
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<tr>
<td>Jan</td>
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</tbody>
</table>

(Annual)
Heat Accumulation in Recent Vintages Compared to Average
McMinnville, Oregon Station

Month of Year

Heat Accumulation in Degree Days (50°F)

2007 YTD

2006

2003

2001

2002

2004

2005

1971-2000

1961-1990

2007 YTD

Month of Year
Degree Day Accumulation in Various Regions

Heat Summation
Given as Degree-Days above 50F
for Selected Sites Worldwide

<table>
<thead>
<tr>
<th>Region</th>
<th>Location</th>
<th>Heat Summation</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Geisenheim, Germany</td>
<td>1790</td>
</tr>
<tr>
<td>One</td>
<td>Reims, France</td>
<td>1820</td>
</tr>
<tr>
<td>One</td>
<td>McMinnville, OR</td>
<td>2066</td>
</tr>
<tr>
<td>One</td>
<td>Coonawarra, AU</td>
<td>2170</td>
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<tr>
<td>One</td>
<td>Forest Grove, OR</td>
<td>2205</td>
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<tr>
<td>One</td>
<td>Beaune, France</td>
<td>2300</td>
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<tr>
<td>One</td>
<td>Bordeaux, France</td>
<td>2390</td>
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<tr>
<td>One</td>
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<td>Auckland, New Zealand</td>
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<tr>
<td>Two</td>
<td>Yakima, WA</td>
<td>2600</td>
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<tr>
<td>Two</td>
<td>San Luis Obispo, CA</td>
<td>2620</td>
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<tr>
<td>Two</td>
<td>Melbourne, Australia</td>
<td>2750</td>
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<tr>
<td>Two</td>
<td>Grants Pass, OR</td>
<td>2870</td>
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<tr>
<td>Two</td>
<td>Medford, OR</td>
<td>2815</td>
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</tbody>
</table>
Last 11 Years (By Chance = 0.05%)

Willamette Valley Heat Summation by Vintage
Growing Season of April-October at McMinnville, Oregon

- Degree Days 1997 On: Ave = 2233 DD
- Average DD 1961-1990 = 1970 DD

Year | Degree Days
-----|-------------
1997 | 2167
1998 | 2352
1999 | 2203
2000 | 2195
2001 | 2196
2002 | 2463
2003 | 2352
2004 | 2184
2005 | 2400
2006 | 2084
2007 | 2084
Tasting of Two Vintages, Two Soils

Volcanic Soils

Dundee Hills AVA

Ocean Sedimentary Soils

Ribbon Ridge AVA  Yamhill-Carlton AVA

2005 Eyrie  2006 Domaine Drouhin

2005 RR  2006 Penner-Ash
The Future

Willamette Valley Heat Summation by Vintage
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Degree Days 1997 On: Ave = 2233 DD
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<table>
<thead>
<tr>
<th>Year</th>
<th>Degree Days</th>
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<tbody>
<tr>
<td>1997</td>
<td>2167</td>
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<td>1998</td>
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<td>1999</td>
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<td>2184</td>
</tr>
<tr>
<td>2006</td>
<td>2400</td>
</tr>
<tr>
<td>2007</td>
<td>2084</td>
</tr>
</tbody>
</table>
Grapevine Climate/Maturity Groupings

Average Growing Season Temperature (NH Apr-Oct; SH Oct-Apr)

<table>
<thead>
<tr>
<th>Avg Temp (°F)</th>
<th>Muller-Thurgau</th>
<th>Pinot Gris</th>
<th>Gewurztraminer</th>
<th>Riesling</th>
<th>Pinot Noir</th>
<th>Chardonnay</th>
<th>Sauvignon Blanc</th>
<th>Semillon</th>
<th>Cabernet Franc</th>
<th>Tempranillo</th>
<th>Dolcetto</th>
<th>Merlot</th>
<th>Malbec</th>
<th>Viognier</th>
<th>Syrah</th>
<th>Table grapes</th>
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<tbody>
<tr>
<td>55-59</td>
<td>Blue</td>
<td>Green</td>
<td>Red</td>
<td>Blue</td>
<td>Green</td>
<td>Red</td>
<td>Blue</td>
<td>Green</td>
<td>Blue</td>
<td>Green</td>
<td>Red</td>
<td>Blue</td>
<td>Green</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
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</tbody>
</table>

Length of rectangle indicates the estimated span of ripening for that varietal.

1955-1980
1980-2005
2005-2030
Adaptations:

Historically,

Viticultural Improvements:

- Clonal material
- Canopy management
- Crop load thinning
- Sustainable methods

Winemaking:

- Classic process
- Better controls
  - Equipment/facilities
  - Better data and access to assistance
Adaptations:

The FUTURE,

Concerns and Issues:

- Climate Change:
  - site, variety/clone/rootstock, diseases/pests, H2O
- Political:
  - labor/equipment
  - globalization of marketplace
- Environmental:
  - C footprint
  - Sustainability in vineyard and winery
OR Development Phases: Past and Future

- Pioneers: technically grounded, individualistic
- Romantics: passionate and willing to learn from scratch—short on “how”, long on “why”
- Doctors and Dollars: doctors, lawyers, outside jobs with personal capital
- In The Wine Biz: validation from other wine regions
- Apprentices: talent in support of current wineries step out on their own
- 2nd Generation: the ultimate validation to the pioneers
Cool Climate Characteristics

- Ripe, fresh Fruit
- Bright Acidity
- Minerality
Welcome to OREGON