

Western Washington Grape Growers Workshop 30 March 2011

# Winegrape Selections: Puget Sound Area

Thomas Henick-Kling, WSU-TriCities Michelle Moyer, WSU-Prosser

## **Overview of Varietal Selection**

- 1. Site considerations
- 2. Growing Degree Days: A means for site comparisons
- 3. Variety Trials at WSU-Mt. Vernon and elsewhere
- 4. Grape varieties vs. wine-styles
- 5. Experience with varietals in other cool climates



### **Matching Grape Variety and Vineyard Site**

#### Site Considerations:

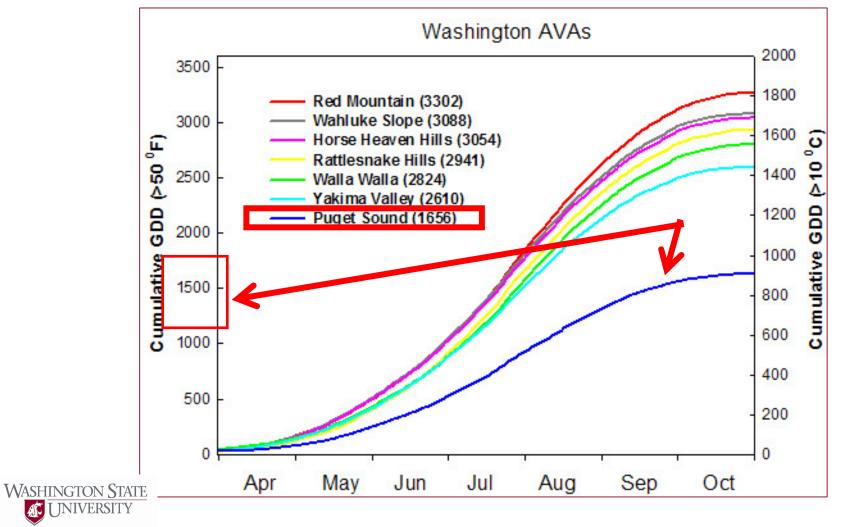
- Growing-season heat accumulation
- Winter temperatures (average and extreme lows)
- Site-specifics (soil type, pH, depth to restriction, WHC, air drainage)
- Pest and disease pressure

More info for cool-climate site considerations:

 http://www.nysaes.cornell.edu/hort/faculty/pool/NYSite-Soils/SiteSelection.html

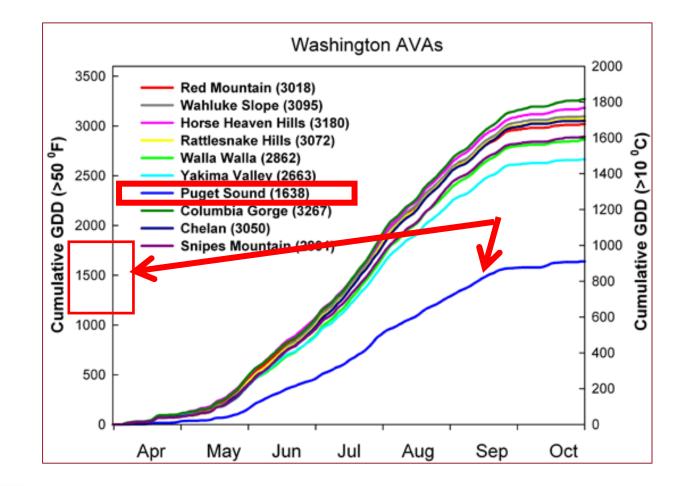


#### Long-term GGD for Washington AVAs



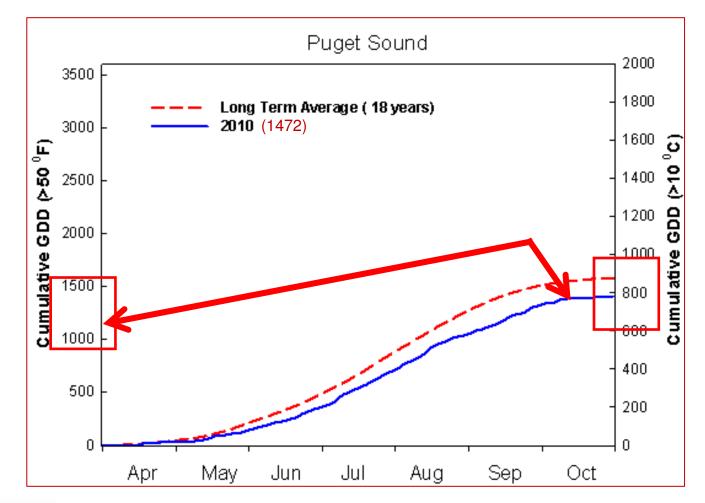
World Class. Face to Face.

#### **2009 GGD for Washington AVAs**





#### 2010 GGD for Puget Sound





#### Growing Season Heat Accumulation: Viticulture World-Wide

| Location                   | GDD (F) |
|----------------------------|---------|
| Puget Sound, WA            | 1,652   |
| Champagne (Reims, France)  | 1,756   |
| Zürich, Switzerland        | 1,874   |
| Würzburg, Germany          | 1,908   |
| Burgundy (Dijon, France)   | 2,084   |
| Roseburg, OR               | 2,115   |
| Finger Lakes(Penn Yan), NY | 2,390   |
| Bordeaux (France)          | 2,464   |
| Finger Lakes(Geneva), NY   | 2,510   |
| Keckskemét, Hungary        | 2,588   |
| Canberra, Australia        | 2,714   |
| Yakima Valley, WA          | 2,610   |
| Bozen/Bolzano, Italy       | 2,985   |
| Udine, Italy               | 3,168   |
| St. Helena, CA             | 3.302   |
| Fresno, CA                 | 4,684   |

Adapted from Bob Pool, Cornell University

**Opportunities in based on comparisons** with other regions with 1600-1900 GDD

- Premium sparkling wines
- Early ripening white varieties Siegerrebe, Madeline Angevine
- Mid-season white wines with malolactic fermentation Müller Thurgau, Chardonnay, Sauvignon Blanc, Auxerrois, Kerner, Cayuga White,

Regent, Pinot Noir on selected sites

### **Variety Trials**

WSU-Mt. Vernon

### Grape Trials at WSU - Mt Vernon

Gary Moulton, Jacky King

- Growing Wine grapes in Maritime Western Washington
- EB2001:

http://cru.cahe.wsu.edu/CEPublications/eb2001/eb2001.pdf

- In addition, more information can be obtained from individual yearly reports.
- http://maritimefruit.wsu.edu/Reports.htm

#### Grape Trials at WSU - Mt Vernon



Gary Moulton, Carol Miles modified by T Henick-Kling

## Pinot Noir clones Pinot Precoce

Garanoir Dornfelder Zweigelt Iskorka Italian Merlot Heroldrebe St. Laurent **Regent**  Sylvaner Auxerrois Chardonnay Sauvignon Blanc Burmunk Siegerrebe Pinot Gris Muscat Kerner

#### Schönburger Grüner Veltliner



Burmunk Golubok Optima Ortega Regner **Red Traminer** Pitos Plaj Goesji Zumalos Siewiernyl Kekoyelve Golubok Agria Rondo

### **Climate-Variety Suitability**

Variety guidelines (W=white; R=red) for the North Olympic Peninsula based on growing degree-days (F)

| <1600 GDD   | 1600-1900 GDD   | >1900 GDD  |
|---|---|--|
|   | Everything to left, plus:   | Everything to left, plus:  |
| <mark>Siegerrebe (W)</mark><br>Madeleine Angevine (W)<br>Burmunk (W)<br>Iskorka (W) | Chardonnay cl 76 (W)<br>Auxerrois (W)<br>Kerner (W)<br>Sylvaner (W)   | Sauvingnon Black (W)<br>Pinot Gris [Ruländer] (W)<br>Pinot Blanc (W)<br>Chasselas (W)<br>Red Traminer (W)                            |
| Muscat of Norway (R)<br>Rondo (R)   | Pinot noir cl. Mariafeld (R)<br>Pinot noir cl Precoce (R)<br>Regent (R)<br>Garanoir (R)<br>Agria (R)<br>Leon Millot (R) | Pinot noir [all cl.] (R)<br>Dunkelfelder (R)<br>Gamaret (R)<br>St. Laurent (R)<br>Zweigelt (R)<br>Lemberger (R)<br>Marechal Foch (R) |

### **Grape varieties vs. Wine Styles**

Experiences in similar locations

### **Cool-Climate Varieties**

Experiences in similar locations

#### **New Grape Varieties for Cool Climates**

Weinsberg, Germany

#### Acolon Good wine quality, very good in short, cool season

Cabernet Dorsa High wine quality, also good blender, ripens early

Cabernet Rubin High wine quality, requires warm ripening conditions

# Experience with new grape cultivars in Switzerland Lake Zürich

Regent Garanoir Gamaret Chardonnay Müller-Thurgau Chasselas Räuschling Pinot Noir

#### Vitis vinifera

Pinot Noir clones Lemberger Rotburger Shiraz Pinotage Chardonnay clones Auxerrois **Pinot Gris** Pinot Blanc Viognier Siegerrebe Müller-Thurgau Chasselas Bordeaux reds

#### Interspecific hybrids

Cayuga White Traminette Valvin Muscat Noiret Corot Noir GR7 Frontenac St. Vincent Chambourcin Marechal Foch Leon Millot Baco Noir Seyval Blanc

Chardonnay clones

Tasting notes:

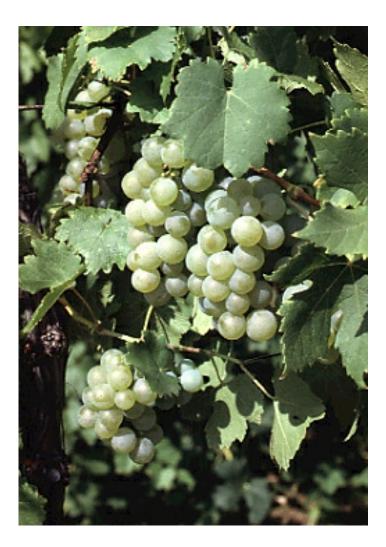
Dijon 75 lots of fruit, peaches, good full mouthfeel Dijon 76 nectarines, less forward fruit than cl. 75, apple, citrus flavors, nice, rich fruit, good body, strong peach, apricot, apple Dijon 95 green apple, vegetative, green Dijon 96 vegetative, grassy, some peach, grassy in mouth FPMS 7 sl. dusty/moldy aroma (powdery mildew?), sl. bitter, green Dijon 78 spicy, peach, sl. floral, apple and citrus underneath Geneva melons (cantelope, honeydew), apple, lemon Corton grassy, white grapefruit, thin FPMS4 unripe flavors, thin

Auxerrois ripe fruit middle, pears, spices, nice

Interspecific hybrids

Seyval Blanc Vidal Blanc Vignoles

Cayuga White Traminette Chardonel Val de Muscat





## Vídal

Tasting impressions: Riesling-like with cotton candy hybrid aromas, acidity can be high



# Vígnoles

Tasting impressions:White grape fruit with or without honey...High acidity in cool/warm summer climates!Excellent for late harvest wines with or without *Botrytis* 



## Seyval Blanc

Grassy, citrusy, thin Very fruitful, needs cluster thinning



Cayuga White

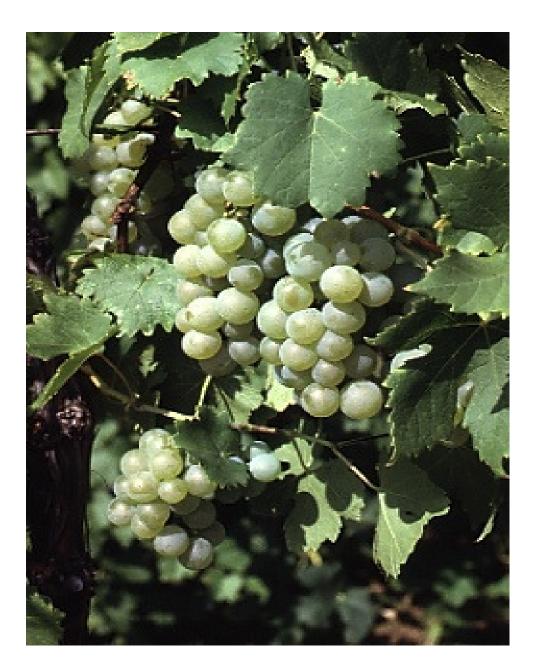
Tasting impressions: Riesling-like, Chardonnay-like. Good mouthfeel. Easy winemaking chemistry. Excellent blending variety. Suitable for a range of wine styles.



## Traminette

Tasting impressions:

Excellent Gewürztraminer and some Muscat spice aromas! Good texture, no bitterness. Long aftertaste.



# Valvín Muscat

- High quality Muscat wine
- Own-rooted vines are small
- Grafting is recommended
- Ripens mid-season

## Valvin Muscat (C 299-35 x Muscat Ottonel)

Cold hardiness (Adj. M. LTE): -11.6 to 15.9  $^{\circ}$ F (-24.2 to -26.6  $^{\circ}$ C) Some powdery mildew susceptibility.

Tasting impressions (wine fermented dry): (1996)

Good Muscat, excellent body and mouth feel; strong Muscat, green, thin palate; crisp acid/citrus, mango, lacks body, acidic, sl. bitter.; Muscat, spciy, thin body, bitterness;

(1998)

nice aromas; beautiful floral+spicy nose, too acid, some green apple aftertaste; muscat, vanilla, pineapple;



Frontenac (riparia 89 x Landot 4511)

Cold hardiness (adj. M. LTE): -15 to -21.6  $^{\circ}$ F, -26.1 to -29.8  $^{\circ}$ C Very low rot susceptibility

Tasting impressions: very dark color, wild berry flavors deep red color, nice dark cherry aromas, berries, good soft tannins, fleshy, acidity too high berry cherry fruit, hybrid, lacking texture, some Cabernet Sauvignon character, high acidity, black cherry hybrid aftertaste unusual fruit flavors, artificial fruit, spicy, ok tannins, ok acidity





# Chambourcín

Tasting impressions:

very hybridy, Buffalo-like, bitter tannins, wild grape flavors, nice berry cherry aromas, lacking tannins, pleasant aftertaste,

# Marechal Foch

Tasting impressions from Oregon and Ontario: Jammy, cherry, soft tannins, lacking fine texture, round



## Chelois

Tasting impressions Pinot Noir like aromas, middle and finish rather thin

### Experience with new grape cultivars in New York



# Noiret

• Excellent full-bodied wine with a distinct pepper character and moderate tannin content.

- Vigorous and productive
- Moderate resistance to powdery mildew
- Fruit maturity is Sep/Oct

## Noiret NY65.0467.08 {NY33277 x Chancellor} X Steuben

- Excellent red wine good tannin, pepper, free of hybrid character
- Good vine size, some decline in older vines, may need grafting
- Harvest late September / early October
- Disease resistance: OK for powdery mildew black rot, and Botrytis; downy mildew may need control

## Noiret (65.0467.08 x Steuben)

Cold hardiness (Adj. M. LTE): -13.2 to 15.2  $\degree$ F (-25.1 to -26.2  $\degree$ C) Very rot resistant.

Tasting impressions:

(1996) FS: purple, musky aroma, sl. bitter; very hybridy, weedy, medicinal, bitter, sour cherries; Black pepper nose, light structure; vegetal, unripe fruit; Baco like, black cherry flavor, yeasty, vegetative, nose; HP: purple, cloudy, berries, pepper, tannins; dark, weedy, wild, very grassy; nice flavors and aromas better structure; grassy/herbal; very purple black, black pepper flavor, black cherry;

(1997) FS: dark color,nice berries,peppery,s. hyb taste,cherry,smokey,Rhone-lk; blk pepper, tannic, big vinif(Lemberger)...bring on the steak.; black pepper Rhone like characteristics; black pepper aroma and taste; some tannin; astringency; smoky/beany aroma, nice mouth+tannins; blueberries, pepper, tannin; HP: berries, some bybrid taste, thin; ripe berry flavors, good body and tannins, hybrid taste; more herb nose; pleasant wine, slight bitter aftertaste; sour finish, good mild citrus nose.; FS+1: tannic, bitter, "wild" berry taste; good body, tannins; more astringent; buttery, fruity, sl. green pepper;



- Excellent red wine good fruit and berry aromas, medium body
- Productive and vigorous, may need cluster thinning
- Harvest mid-October
- Disease resistance: broadly tolerant of fungal diseases (including Botrytis)

## Corot Noir (65.0467.08 x Steuben)

Cold hardiness (Adj. M. LTE): -13.2 to 15.2  $^{\circ}$ F (-25.1 to -26.2  $^{\circ}$ C) Very rot resistant.

Tasting impressions:

(1996) FS: purple, musky aroma, sl. bitter; very hybridy, weedy, medicinal, bitter, sour cherries; Black pepper nose, light structure; vegetal, unripe fruit; Baco like, black cherry flavor, yeasty, vegetative, nose; HP: purple, cloudy, berries, pepper, tannins; dark, weedy, wild, very grassy; nice flavors and aromas better structure; grassy/herbal; very purple black, black pepper flavor, black cherry;

(1997) FS: dark color,nice berries,peppery,s. hyb taste,cherry,smokey,Rhone-lk; blk pepper, tannic, big vinif (Lemberger)...bring on the steak.; black pepper Rhone like characteristics; black pepper aroma and taste; some tannin; astringency; smoky/beany aroma, nice mouth+tannins; blueberries, pepper, tannin; HP: berries, some bybrid taste, thin; ripe berry flavors, good body and tannins, hybrid taste; more herb nose; pleasant wine, slight bitter aftertaste; sour finish, good mild citrus nose.; FS+1: tannic, bitter, "wild" berry taste; good body, tannins; more astringent; buttery, fruity, sl. green pepper;

## Conclusions

- Understanding your site is crucial in varietal selection
- The site will dictate what you can and cannot grow
- "Pushing" a variety is okay- but know what the consequences might be
- Compare with other, similar viticulture areas
- What you can, should and want to grow may all be different