

#### **Monthly Events**

January 15th, 2020 Crush Talk & Planning

January 25th, 2020 Annual Gala

February 19th, 2020 Bordeaux varietals and Bordeaux blends, Blind Tasting

March, 18th, 2020 Speaker TBA

#### **April 15th, 2020** Barrel / Carboy Samples Tasting & discussion (not blind)

May 20th, 2020 Best Practices; winemaking skills & discussions. Tips & Tricks. Vineyard grape sources.

June 17th, 2020 Speaker

**July** Annual Picnic

August 19th, 2020 All Whites Blind Tasting

September, 16th, 2020 Other Reds Blind Tasting

**October 21st, 2020** Pinot Noir Blind Tasting

November 18th, 2020 Crush Talk

**December 16th, 2020** Elections, Planning for Next Year, More Crush Talk

**NOTE:** Tours, Gala & picnic date & times may vary depending on availability.

## **Portland Winemakers Club**

March 2020 "Bill's Meanderings"



Springtime!

Things are blooming and blossoming so it must be spring. So now that the vines are pruned and the first mowing done I've had to start spraying already. I've started with an early application of lime sulfur due to being hard hit late last year with powdery mildew. I'll be doing an early spray and a second one as soon as I see "Wooley Buds", which could be soon. This is to prevent the winter holdover mildew spores from emerging and discouraging the rust mite, another regional issue. I thought the mildew problem was my problem of trying to do everything myself and not getting enough done but when I went to the supply house for spray material I was told that most everyone in the valley was hit hard last year. It reminded me of the quip "if you don't see the mildew in your vines then you haven't looked hard enough". Here's to a cleaner year.

As pointed out at the last meeting there have been good results from the Newport Seafood and Wine Festival amateur wine competition held Feb 20-23.

Our club members that entered did quite well with our past president, Phil Bard, winning best of show with his 2013 Bordeaux blend. Congrats to all, keep up the good work.

Drink Responsibly. Drive Responsibly.

### Upcoming events / Save the date

<u>Next Club Meeting</u>: March of 18<sup>th</sup>, 7:00 pm at the Aloha Grange Hall. <u>Agenda</u>: Speaker TBA, Look for an e-mail prior to the meeting Renew your club membership and sign a new waiver for 2020.

All regular meetings are potluck, bring a small appetizer to share. Also bring a wine glass for tasting.

The club meeting will begin at 7:00 pm and end by 9:00 pm. If you can, get there a little early to help set up. Please help put away chairs and tables at the end of the meeting.

### Website: http://portlandwinemakersclub.com/

### **February Meeting Minutes**

Present: 23

• Bill spoke briefly about the club success at the Newport Seafood & Wine festival amateur competition. Club members won 13 out of the 37 medal given = 37%. The quality of the wines produced by our members has steadily increased over the last 20 years.

• Ken Stinger will inquire how we can adjust the meeting room heat. The last two meetings have been very cold. We were unable to adjust a thermostat on the rear wall.

• Paul Sowray & Gillian Wildfire conducted the member produced Bordeaux varietal & Bordeaux blend blind tasting. The results are shown below.

			2020 PVVC Bordeaux Blind Tasting						
					Bronz				
Wine #	Name	Varietal	Gold	Silver	е	None	Total Score	Medal Score	Medal
1	Paul Boyechko	2016 Cabernet Franc	0	15	8	0	38	1.65	Silver
2	Hoffard/Hooson/Savage	2018 Cabernet Franc	1	10	10	2	33	1.43	Bronze
3	Ken & Barb Stinger	2018 Cab.Franc Blend	13	10	0	0	59	2.57	Gold
4	Rob Marr	2017 Merlot	0	0	17	6	17	0.74	Bronze
5	Hoffard/Hooson/Savage	2018 Cab. Sauv. Blend	6	15	3	0	51	2.22	Silver
6	Paul Rogers/Jim Ourada	2018 Cab. Sauv. Blend	1	9	11	2	32	1.39	Bronze



PWC members did well at the Newport Wine & Seafood Amateur competition this year. Out of 37 medals awarded, PWC members won 13 including Best in Show won by Phil Bard for his "Redolent" Bordeaux blend.

Gold

- Phil Bard
- Bob Hatt
- Paul Sowray
- Mike Wilskey / & Randy Morgan
- Bill Brown
- Ken & Barb Stinger
- Ken & Barb Stinger
- Bob Hatt
- Paul Boyechko
- Ken & Barb Stinger
- Phil Bard

**Redolent Bordeaux Blend** Petit Verdot Grenache

White Blend

**Pinot Noir** Malbec

Zinfandel

- **Pinot Noir**

- bob Hatt
- Paul Boyechko

Viognier Merlot

- **Pinot Noir**

Mourvèdre Chardonnay

No Medal = 13 Total Entries = 53

Gold – Best in Show

Gold Gold Gold Silver Silver Silver Silver Bronze Bronze Bronze Bronze



I'm a Winner!





A new breeding program creates wine grapes that are vinifera with a touch of hybrid.

By Patrick Murad

Regional names were the most dominant method to identify wine purchasing wine until the 1960s when Charles Krug introduced varietal labeling on wine bottles. Before varietal labeling, purchasing wine revolved around stocking your cellar with Bordeaux, Burgundy, Champagne and other distinct wines from localities with centuries of noted quality. Another big change occurred when I was 16 working in my cousin's store. While stocking the wine shelves and reading about wine, he brought home a Krug (Napa Valley) Chenin Blanc. My first WOW moment in wine and I was smitten. Since that time, the world's new wine regions have opened up and built their reputation on varietal names. Other than high alcohol "wino" products the majority relied on borrowing regional names like Port, Rhine, Chablis and many others to market generic jugs and bottles of wine that probably were blends without any grapes even associated with the regional name on the label.

In Michigan, as in most of the newer wine regions around the globe, the drive to build the industry tends to focus on the Vitis vinifera family of grapes like Riesling, Chardonnay and Pinot Noir. The early middle United States history of V. labruscas like Concord, Catawba and others did not meet the standards of fine wine other than being a pleasant beverage with a kick. Later on in Europe, after phyloxera's destruction of the traditional old world vineyards and the solution of grafting onto American rootstock, a diverse group of European breeders started hybridizing vines now referred to as "resistant direct producers."

These vines, as the name implies, could be grown on their own roots doing away with the need for grafting. The other consequence of adding American genes to the mix was different levels of resistance to the newly introduced diseases of powdery mildew, downy mildew and other maladies brought over with plants from the new worlds. These French-American hybrids found favor throughout Europe as growers and the rural population adopted them as easier to grow (thus more productive) and making pleasant everyday wines. That was acceptable until a false smear campaign questioned their human health status at the same time as post-war regulators targeted the over supply of wine production and grapes by banning the these vines and thus the wines with American genetics.

## Antí-Hybríd Bías

Shades of eugenics, historical racism, ethnocentrism and the Nazi Aryan purity beliefs are still apparent today as an existing "anti-hybrid grape world" exists where, for example, only "pure" Pinot Noir is

worthy of adulation. The first break in the armor of this wine grape bias was the introduction of the red wine grape "Regent" from the Geilweilerhof breeding program in Germany. Due to its high disease resistance (from no spray to maximum of 3 treatments a season) and its high wine quality, it forced regulators to allow the planting and selling of wine with less than 100% vinifera genetics. The dam was broken and a movement called PIWI (the acronym for a long German word) emerged for a class of vines that can be grown with minimal use of fungus fighting sprays compared to that used on V. vinifera vines.

Most of these new varieties have been crossed using traditional breeding techniques with selections made after growing the seeds out in the field then selecting and testing for good plants. Significantly, in each of the Polar Vortex years at the Southwest Michigan Research and Extension Center in Benton Harbor, two numbered varietals from the Geisenheim Grape Breeding Institute in Germany breeding program produced full crops each year while pure V. vinifera vines experienced total crop losses and required a full retraining of trunks and cordons. That little bit of extra hardiness and was enough to get them through the winter extremes while growing five miles from the moderating effects of Lake Michigan. These early attempts at vine improvement all have varying positive traits and a few negative traits. These older crosses were done before the advent of marker assisted breeding.

## Mostly Merlot

Twenty years ago at the University of Udine in northeast Italy a molecular biologist named Gabriele Di Gaspero first started to use. this science to identify genetic markers for traits necessary for the

improvement of wine grapes and to make viticulture truly sustainable. He identified markers for resistance to downy mildew and powdery mildew, earlier maturity and cold hardiness. With these new tools, he took great varietals — Merlot, Cabernet Sauvignon, Sauvignon Blanc, Friulano and Pinot Noir— and crossed them with his refined selections with all the best traits. This allowed for the quick selection through classical breeding (hand pollination of male pollen to a female flower) that produced seeds and seedlings with the required traits, while eliminating the majority of the seeds lacking those markers, keeping only those with all of the desired traits.

With back-crossing, the vine remains mostly (90-95%) say Merlot with the extra traits for resistance to downy mildew and the other positive traits. While not 100% vinifera, the wine quality is outstanding compared to most of the vines created previously. While the vine is not strictly "Merlot," the regulators in Brussels are using a naming convention using two words combining the original vine's name with

an historical name, e.g., "Merlot Kanthus."

### The Polar Vortex

Before the onset of climate change, Michigan's predominant AVAs (American Viticultural Areas)—Lake Michigan Shore, Leelanau Peninsula and Old Mission Peninsula—experienced winters with damage to vinifera vines only one in twenty years (Lake Michigan Shore) or one in ten years (Leelanau and Old Mission). With the arrival of the Polar Vortex however, an unexpected sinister twist on the idea of global warming occurred and we now can claim 3 crop losses in just the last 6 years. Luckily, the slightly hardier, somewhat less-than-vinifera vines first developed by di Gaspero could be extremely valuable to Michigan's extreme cold climate viticulture. Not to mention the similarity of our wet-humid climate to Northern Italy where it is necessary to apply 16 fungicide sprays in a Pinot Grigio vineyard to produce a crop suitable for wine making. Most of the promising new breeding programs are located in hot and dry regions unlike the weather in Northeast Italy. In August 2018, Dr Paolo Sabbatini, Associate Professor of Viticulture at Michigan State University, led off the "New Cultivars for Disease Resistance and Increased Sustainability" — a daylong symposium in Leelanau, introducing these new vines and wines with a question: Why have all other agricultural and horticulture crops shown improvement, both through breeding and selection, while in the world of wine grapes, we insist on remaining with the same varieties and actually demanding that vineyard yields go down to a time earlier in the past century? No doubt the first question one asks before a new vineyard is planted is who will buy my grapes? Or, what grapes do wineries need? The variety that the customer asks for in the tasting room is always the best seller. But the varietal naming convention is already 50 years old and may be nearing the end of its usefulness. How can we move forward with new varieties? I think the sustainability factor built into this new generation of grapes is the way of the

future. Organic (called Biological in Europe) is now mainstream and growing quickly. Eastern Europe has experience, the highest planting of these new wine grapes, both because of cold hardiness and disease resistance and the lack of an historical reliance on the traditional Mediterranean influenced Vitis vinifera vines.

### Back to the Future?

Michigan's love affair with vinifera started with Riesling, luckily the most cold hardy of the bunch. I remember an interview with a mature blues singer named Ruth Brown. In her youth, while singing on stage in a nightclub, she saw Billy Holiday walk in and did her best rendition of Billy's song. Later in the dressing room Billy walked in and gave her some advice. When people hear you doing my songs they will remember me not you. Do your own work and people will know you and support you. When a Michigan Riesling wins an international competition are we still giving a share of our awards to the ancestral home of Riesling in Germany while still fighting an uphill battle for recognition?

Is there a change coming? With these new grapes in our arsenal, the economics of grape and wine production will change. The wine quality is outstanding. The cold hardiness makes the economics of crop failure years a thing of the past. The reduction of multiple sprays per year is another plus with the growth potential of marketing organic wines. Today the "genetically improved," "mostly Merlot" vines are available in California at Novavines, the sole importer and licensee. The nursery paid to import and put them through the certification process at the Foundation Plan Services. They are now being grown in increased blocks and will slowly be available over the next few years.



## **The Sweetness Levels of White & Sparkling Wines**

April 10, 2019

Sweet wines are great for desserts (they are sometimes called dessert wines), Sunday afternoons, and for those new to drinking wine.

Here is a guide to help you decipher the often-confusing wine label of sweet white wines. Using this will help you pick out a bottle of wine that has your desired sweetness level and flavors.

### **Sweetness Levels in Wine**

Technically, every white wine can be made sweet, depending on when it was picked or how much sugar the winemaker added. Because of this, you can't always depend on the varietal of wine to tell you how sweet the wine is. For example, Riesling can be made dry or sweet. Rieslings and Gewurztraminers are two white wines that age well. If you have aged your white wine, be sure to decant your wine before drinking, just like a red wine.

How do I know if a wine is sweet or not? The labels on the wine often indicate the sweetness level. The sweetness in a wine is derived from residual sugar (RS), or the sugar leftover in the wine after fermentation has been ended.

Bone Dry: Less than 1 g/L RS Common Flavors: Lemon, citrus fruits Common Varietals: Muscadet

Dry: 1-10 g/L RS Common Flavors: Grapefruit, lemongrass, other fruit and savory flavors Common Varietals: Sauvignon Blanc, Chenin Blanc, Viognier

Off-Dry: 11-35 g/L RS Common Flavors: Honey, lemon curd, melon Common Varietals: Gewurztraminer, Riesling

Semi-Sweet: 35-50 g/L RS Common Flavors: Ripe tropical fruits, sweet melons Common Varietals: Moscato WHITE WINES SWEETNESS CHART



Sweet: 50-120 g/L RS Common Flavors: Lemon curd, honey, candied fruit Common Varietals: White Port

Very Sweet: 120-220 g/L RS Common Flavors: Raisin, dried fig, candied fruit Common Varietals: Ice Wine

Wines with the same amount of Residual Sugar or sweetness can taste very differently. Wines with a lower acidity will taste sweeter than those with a higher acidity. Higher acidity white wines have tart citrus and tropical fruit flavors, off-setting the sweet taste.

#### **Sparkling Wine Sweetness Levels & Terminology**

Sparkling wines and Champagnes have their own sweetness levels that are different than white wines. Sparkling wines, even the sweetest sparkling wines, have much less residual sugar than still wines.

For example, Doux (sweetest level of sparkling wine) only has around 50 g/L RS but has the same sweet taste as a very sweet white wine with 120-220 g/L RS. This has to do with carbonation and acidity levels.

Here are the words you will see on a bottle of sparkling wine to indicate its sweetness from bone dry to very sweet:

extra brut: 0-6 grams of sugar per liter brut: less than 12 grams of sugar per liter extra dry: 12-17 grams of sugar per liter sec: 17-32 grams of sugar per liter demi-sec: 32-50 grams of sugar per liter doux: more than 50 grams of sugar per liter





**The Russian River flowed with a cherry red tint** Wednesday, January 23rd after tens of thousands of gallons of fresh cabernet sauvignon wine poured into the largest tributary in Sonoma County.

The wine — enough to fill more than 500,000 bottles — spilled from a Rodney Strong Vineyards' storage tank at the Healdsburg winery, made its way into Reiman Creek running through the property and drained into the river. It's likely the biggest wine spill in county history, but certainly in the past 20 years, said Don McEnhill, executive director of nonprofit Russian Riverkeeper, noting he couldn't recall gallons of this magnitude reaching the river.

SO IT TURNS OUT THAT BEING AN ADULT IS MOSTLY JUST GOOGLING HOW TO DO STUFF.

# "Marker-Assisted Selection" Makes Efficient Table Grape Breeding

VitisGen2 Identifies 70+ Marker-Trait Associations

By Tim Martinson, Sr. Extension Associate, Cornell University Craig Ledbetter, Research Geneticist, USDA Agricultural Research Service, Parlier, CA

Table grape breeders – both private and public – have an enviable record of success. They have brought the industry a wide range of new cultivars – introduced on a regular basis – that help the industry adapt to changes in the marketplace and new trends. Unlike wine grape breeders, they are not hampered by varietal labels like Chardonnay and Cabernet Sauvignon – names that date back to the 17th century. Consumers readily accept new table grape varieties.

Yet, grape breeders have been flying blind. Unlike corn or soybean breeders that have access to inbred, genetically uniform lines to guide their efforts, grape breeders must use highly heterozygous (genetically variable) parents to make their crosses. Corn breeders can use genetic tools to evaluate 1000s of progeny at the seed stage, select to plant only those individuals with potentially desirable traits, and evaluate them in the field within a few months. With grapevines,



Figure 1. A 'poor color' parent ("01-5024-10") and a 'good color' parent ("Scarlet Red") were crossed to make a 'mapping population' of 300 unique individuals. This mapping population will be used to identify DNA markers for red color.

the cycle from seed to seed takes a minimum of 2-3 years. And field evaluations of yield and quality generally involve at least 3 annual cropping cycles. So breeding grapevines has involved a large amount of trial and error – and a limited understanding of the genetics behind important traits. To compensate, breeders make more crosses and produce more progeny to find the proverbial needle in the haystack: The new variety that combines desirable traits in a novel way. It takes many thousands of seedlings to identify each new variety.

### **DNA Sequencing Gets Cheaper**

New developments in DNA sequencing technology are changing the field. The cost of obtaining DNA sequence information has plummeted – The cost of sequencing each mega-base (that's 1 million DNA base pairs) now stands at a little more than a penny (1.2 cents), down from \$500 in 2007. Cheap DNA sequencing information is providing breeders with more information to guide their otherwise 'conventional' (Non-GMO) breeding programs. Note that grape breeders are still making crosses in the same way that plant breeders have done for centuries: They take pollen from one parent and use it to fertilize flowers of another parent. Beyond this natural process, there is no other genetic manipulation happening. What rapid and inexpensive DNA sequencing allows them to do is to identify DNA markers that are associated with traits. These markers are like mailing addresses specifying locations on a map of the 19 grape

chromosomes. Once they have these DNA markers, they can then test new vines at the seedling stage, and discard those that don't have the appropriate markers. This technique, called marker-assisted selection, makes the breeding and selection process much more efficient.

This may not sound dramatic, but it really is a big deal. Each seedling that is placed out in the field for evaluation involves an added expense (3-4 years for establishment, and field space) – so if you can find out that a given plant doesn't have the traits you want when it's a seedling, you can toss it early and avoid the time and expense of evaluating it for several years.

### Markers for Red Berry Color

A good example is the new effort at the Parlier USDA laboratory to find DNA markers for fruit color. As part of the

USDA-funded VitisGen2 project, USDA breeders Craig Ledbetter and Rachel Naegele are working to identify DNA markers for red berry color. To do this, they have crossed a breeding accession with poor color (01-5024-10) with a variety with great color (Scarlet Royal). The 300 seedlings resulting from this cross – called a 'mapping population' by breeders - are expected to produce vines having a variety of berry colors ranging from very poor to very good when they begin fruiting this season.

For each of these 300 seedlings, researchers will collect tissue samples and amplify and sequence DNA segments that correspond to different locations among the 19 grape chromosomes. Because the parents of these 300 individuals are highly heterozygous (genetically variable), each seedling is a unique combination of genes. By comparing them, using a

new testing methodology called AmpSeq, researchers will be able to identify around 7000 short DNA segments that function much like highway 'mile markers' to locate different genetic regions. At the same time, imaging techniques will allow them to quantify berry skin color in each of the 300 progeny. By matching up color metrics with the DNA 'mile markers', they will be able to identify genetic regions, called 'QTLs' or 'quantitative trait loci' that are associated with genes that influence color.

Once these DNA markers associated with color are identified, breeders will be able to test seedlings shortly after they germinate, and save only the ones that have the desired DNA markers. This is marker-assisted selection. The savings and increased efficiency are potentially enormous. Instead of wasting valuable nursery and vineyard space waiting for 2-3 years to see if the grapes are the desired color, breeders will be able to make better decisions about what to toss and what to keep much earlier in the process.

The VitisGen2 project has identified more than 70 marker-trait associations for disease resistance and fruit quality traits. As these markers become available to commercial and public breeding programs, expect a quantum leap in their ability to confidently incorporate useful traits into new varieties – lowering the cost of breeding and helping the table grape industry maintain its competitiveness in years to come.



### Acknowledgement

Mention of trade names or commercial products in this publication is solely for the purpose of providing specific information and does not imply recommendation or endorsement by the U.S. Department of Agriculture. USDA is an equal opportunity provider and employer. This research was supported by the USDA-NIFA Specialty Crop Research Initiative (Award No. 2017- 51181-26829).

Editor: This article was written for table grapes but the same or similar principals apply to wine grapes. Maybe we will see some interesting new varietals in the future.



## Portland Winemakers Club Leadership Team – 2020

President: Bill Brown bbgoldieguy@gmail.com

- Establish leadership team
- Assure that objectives for the year are met
- Set up agenda and run meetings

### Treasurer: Barb Thomson <a href="https://doi.org/10.1016/bit.grapevine@frontier.com">bt.grapevine@frontier.com</a>

- Collect dues and fees, update membership list with secretary
- Pay bills

### Secretary: Ken Stinger kbstinger@frontier.com

- Communicate regularly about club activities and issues
- Monthly newsletter
- Keep updated list of members, name tags and other data

Chair of Education/Speakers: Rufus Knapp Rufus.Knapp@fei.com

Arrange for speakers & educational content for our meetings

Chair for Tastings: Paul Sowray & Barb Stinger davids1898@aol.com

Conduct club tastings

kbstinger@frontier.com

Review and improve club tasting procedures

Chair of Winery/Vineyard Tours: Damon Lopez. dlopez5011@yahoo.com

- Select wineries, vineyards etc. to visit
- Arrange tours
- Cover logistics (food and money)

Chair of Group Purchases: Bob Hatt <a href="https://bobhatt2000@yahoo.com">bobhatt2000@yahoo.com</a>

- Makes the arrangements to purchase, collect, and distribute
- Grape purchases
- Supplies These should be passed to the President for distribution

Chair of Competitions: Paul Boyechko labmanpaul@hotmail.com

• Encourage club participation in all amateur competitions available. Make information known through Newsletter, e-mail and Facebook.

Chairs for Social Events : Marilyn Brown & Mindy Bush <u>brown.marilynjean@gmail.com</u> \* Gala / Picnic / parties <u>mindybush@hotmail.com</u>

Web Design Editor: Alice Bonham alice@alicedesigns.org