FINGER LAKES WINE ALLIANCE

SOCIETY of WINE EDUCATORS

Terroir of Finger Lakes Riesling: Single Vineyard Expressions

Society of Wine Educators 40th Annual Conference

Washington, DC

August 12, 2016

Speakers

- **Lorraine Hems**
  - Lecturer at the Rochester Institute of Technology and New York Wine and Culinary Center
  - CWE, CSS
  - WSET Level 3
  - CS with CMS
  - AWS Certified Wine Judge and Instructor
- **Bob Madill**
  - Wine Industry Liaison, Finger Lakes Wine Alliance
  - Brand Ambassador, Glenora associated wineries
  - Wine Director, Kindred Fare restaurant
  - Board Member, International Riesling Foundation
  - WSET Level 3
  - AWS Certified Wine Judge and Instructor

Finger Lakes Wine Alliance

- Incorporated in 2004
- 29 wineries working together to promote the visibility of the Finger Lakes.
- Mission Statement

  To increase the visibility and reputation of the Finger lakes appellation, its wines and wineries; as North America’s pre-eminent cool-climate winegrowing region.

Outline

- FLX location, AVA, geography, geology
- Growing circumstances, Lake-effect, Terroir
- Current FLX Wine Industry
- FLX Riesling
- Tasting of 10 FLX single vineyard Rieslings
- IRF Riesling Taste Profile

Where are the Finger Lakes?

Finger Lakes Geography: 10,000 Years in the Making

- Located in the heart of New York State
- Protected by Lake Ontario (north) and Lake Erie (West)
- 11 long, “finger-like” parallel lakes oriented North to South
- Carved by the Ice Age glacial movement
- Main winegrowing lakes are Keuka, Seneca, and Cayuga
- Among the deepest lakes in North America
  - 450 to 600 feet deep with some reaching below sea level

Finger Lakes Viticultural Area

The Finger Lakes:

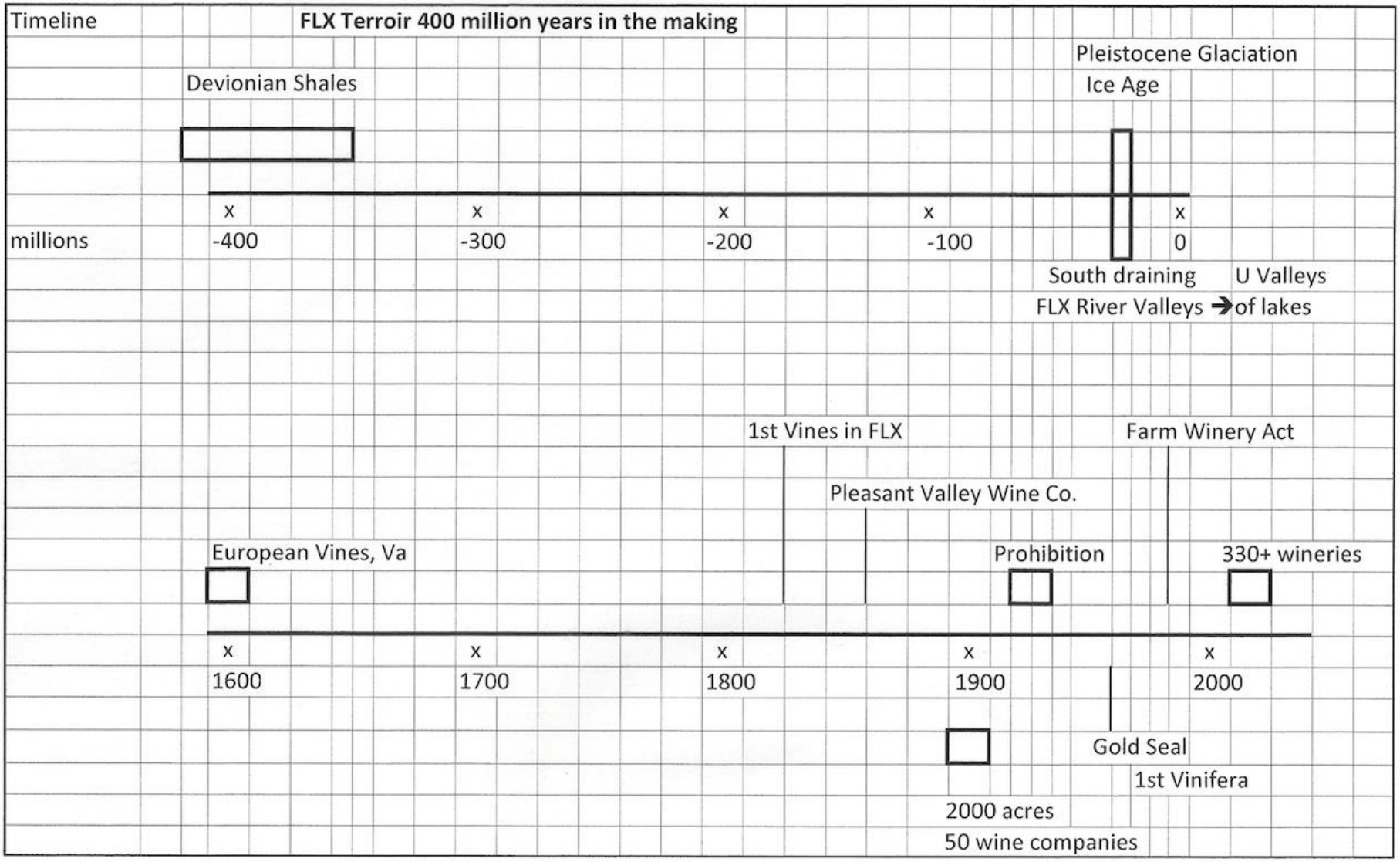
United State’s Premier Cool Climate Wine Region

Breathtaking Vineyard and Lake Views

Where are the Finger Lakes?

- Finger Lakes' vineyards lie between ~ 42°N to 43°N latitude
  - Other US cities in the same range: Boston, Detroit
  - Global in the same range – Northern Hemisphere:
    - California-Oregon border
    - Bandol, France
    - Rioja, Spain
    - Vladivostok (Primorsky Krai), Russia
    - Follonica (Tuscany) Italy
  - Southern Hemisphere
    - Hobart (Tasmania), Australia
    - Trelew (Chabut), Argentina
    - Christchurch, New Zealand

Timeline


Timeline
FLX Terroir 400 million years in the making
Pleistocene Glaciation
Ice Age
Devionian Shales
millions
-400
-300
-200
-100
0
South draining
FLX River Valleys
U Valleys
of lakes
1st Vines in FLX
Farm Winery Act
Pleasant Valley Wine Co.
European Vines, Va
Prohibition
330+ wineries
1600
1700
1800
1900
2000
Gold Seal
1st Vinifera
2000 acres
50 wine companies

Finger Lakes Geology

- **Terroir of the Finger Lakes New York** (April 2005)

  Larry Meinert, Smith College & Tara Curtin, Hobart & William Smith Colleges
- Finger Lakes includes **microclimates, paleodeltas, and glacial features** that allow some vineyards to stand out from their neighbors.
- The **rocks exposed** are part of the **Late Devonian** clastic wedge that was deposited west of the Acadian mountains in a shallow inland sea.
- A thick veneer of **Pleistocene glacial deposits** in the Finger Lakes region covers the Devonian bedrock.
- Deglaciation of the Laurentide ice sheet is recorded by moraines, till, and glacial outwash, and the **excavation** and infilling of the Finger Lakes.
- ….over-deepened, V-shaped bedrock valleys that the Finger Lakes occupy…

Finger Lakes Geology

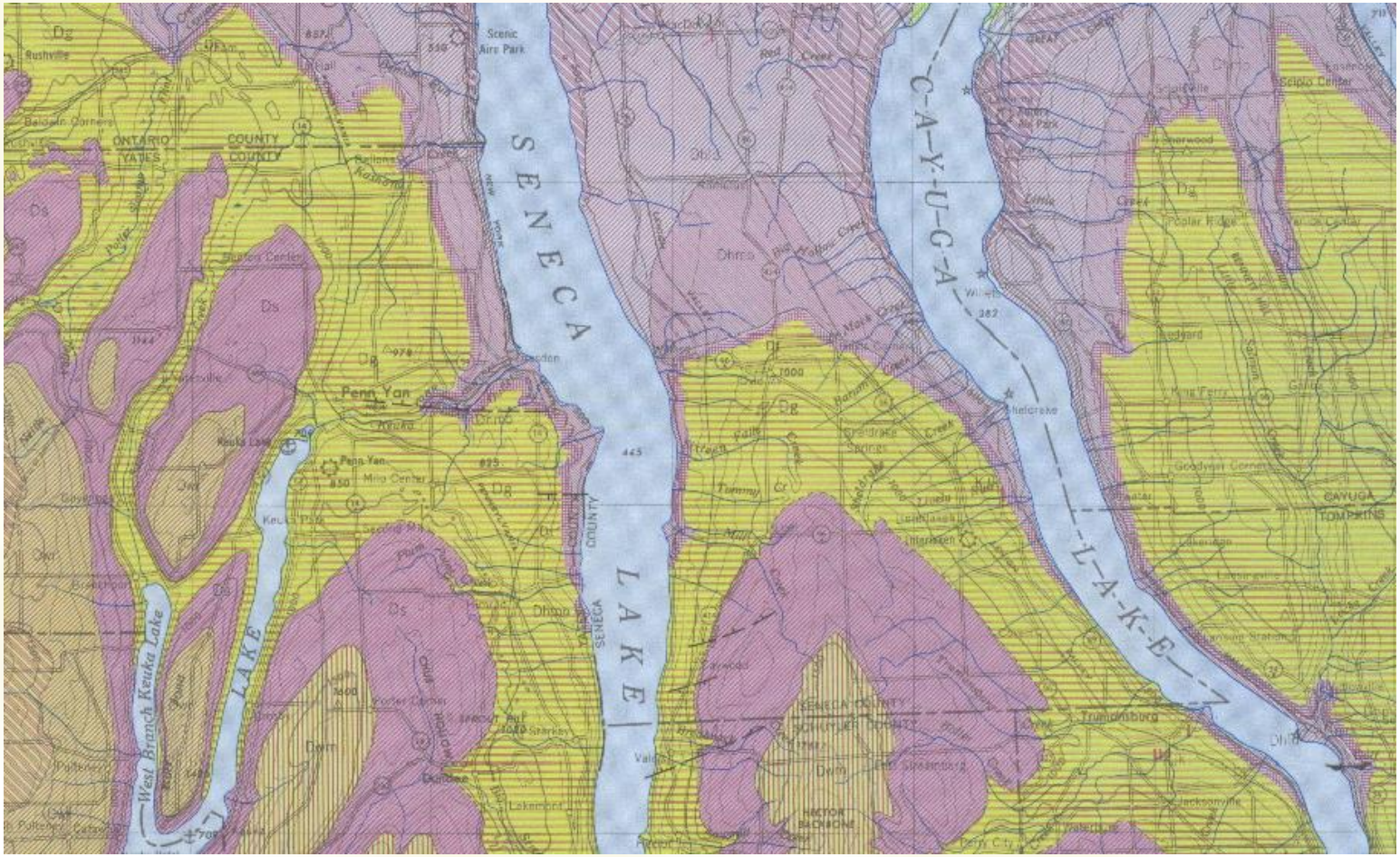
- The **paleodeltas** formed at higher lake levels are now **hanging deltas** exposed on hillsides adjacent to the lakes.
- Paleodeltas have a **different grain size distribution** than adjacent glacial till - dramatic changes in vineyard soil characteristics.
- Paleodeltas have been identified at both **Fox Run** and **Sheldrake Point** vineyards and are in other vineyards.
- The **proglacial clay** distal fringes of deltas can **challenge** vineyard drainage whereas the proximal fluvial parts of the deltas can provide ideal drainage.
- Paleodeltas can have a significant effect on **vine vigor** and performance.

Finger Lakes Geology

- Finger Lakes has several **different soil series.**
- The major differences among these soil series are **grain size distribution** (texture) and protolith composition, especially the presence of **clay and/or limestone** in the subsurface or constituting a significant percentage of glacial clasts in till or reworked fluvial sediments.
- Grain size and texture mainly **affect drainage**, a critical parameter of vineyard performance.
- Limestone affects both **Ca content and pH**, whereas clay affects the availability of Ca, Mg, and K, all essential vine nutrients…

Geology

Yellow Genessee Group and Tully Limestone Purple Shales

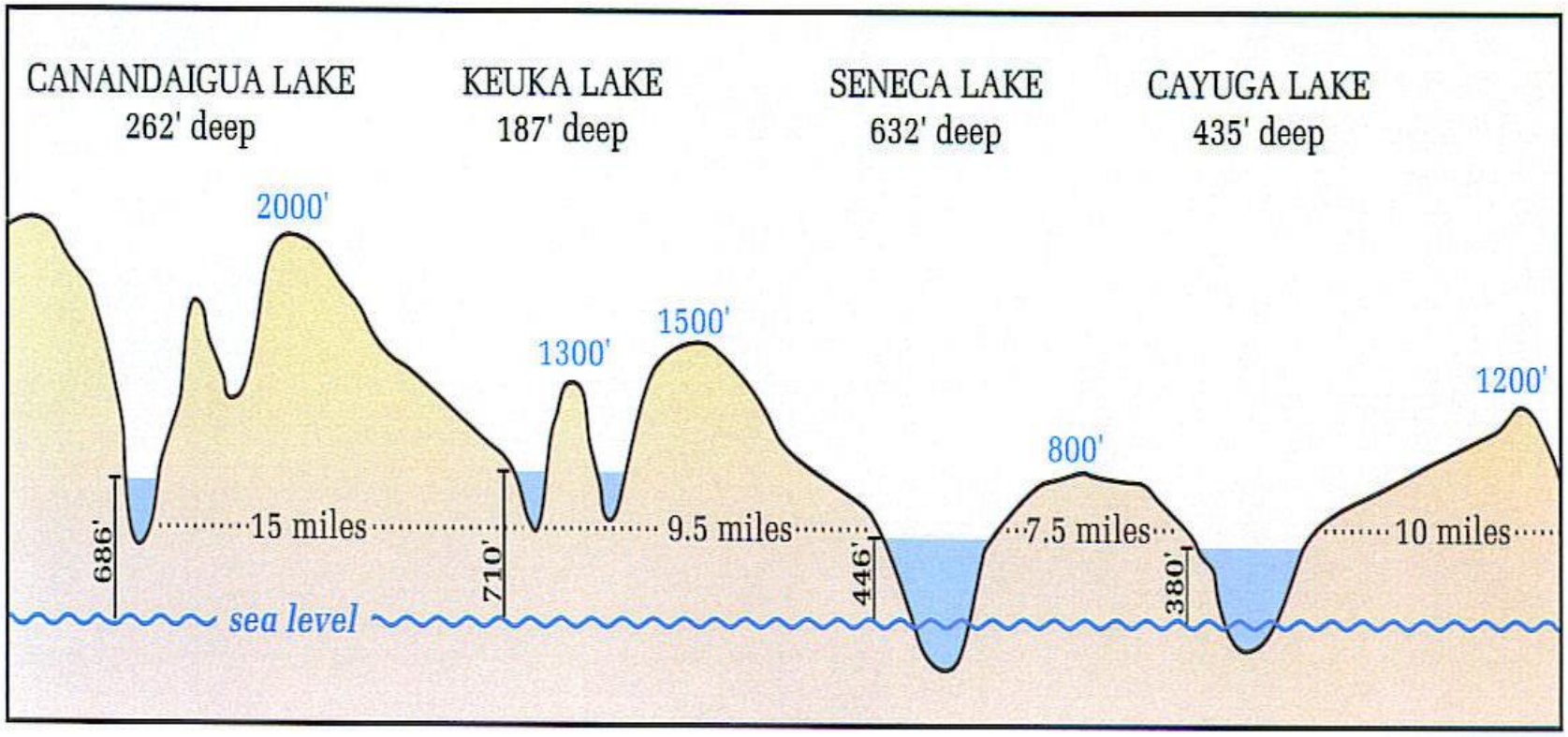


Deep Gorges bound Sheldrake Point Winery

DEEP Lakes - Seneca

Finger Lakes: Topography

- Varying Slopes and Aspects



Why do the Lakes Matter? The Lake Effect

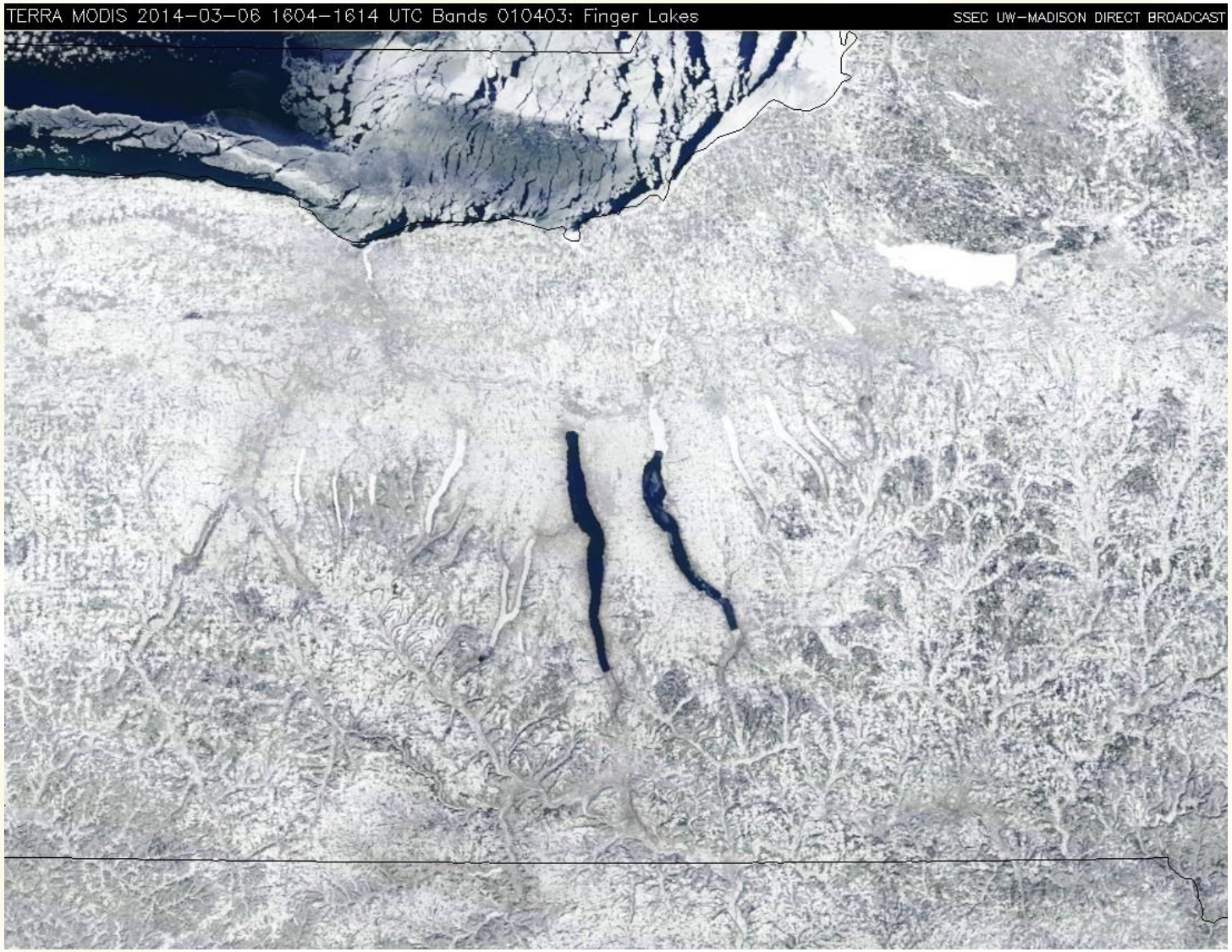
- Lake Ontario to the North & Lake Erie to the West
  - Warm air currents in the winter
  - Cool air currents in the summer
  - Northern FLX vineyards closer and southern farther away
- Depth of Finger lakes provides beneficial “lake effect” to the vineyards planed on the shores
- Warmer minimum temperatures in the winter
- Cooler maximum temperatures in the summer

Why do the Lakes Matter? The Lake Effect

- Great Lakes + FLX "**moderates**" Continental Climate
- Lake effect = **combined** distance from a Finger lake, distance from Great Lakes and rise in elevation
- Vineyard character/diversity =
  distance from water + elevation + glaciated soils + aspect (east/west facing)
- Vineyard locations vary in rainfall & water availability, soil retention capacity
- Seasonal complexity and variation very evident in the wines.

Vineyards Planted East and West on Sloping Lakeshores

Effect of Proximity to Lake Ontario



Winter 2013-2014

Terroir: Sense of Place

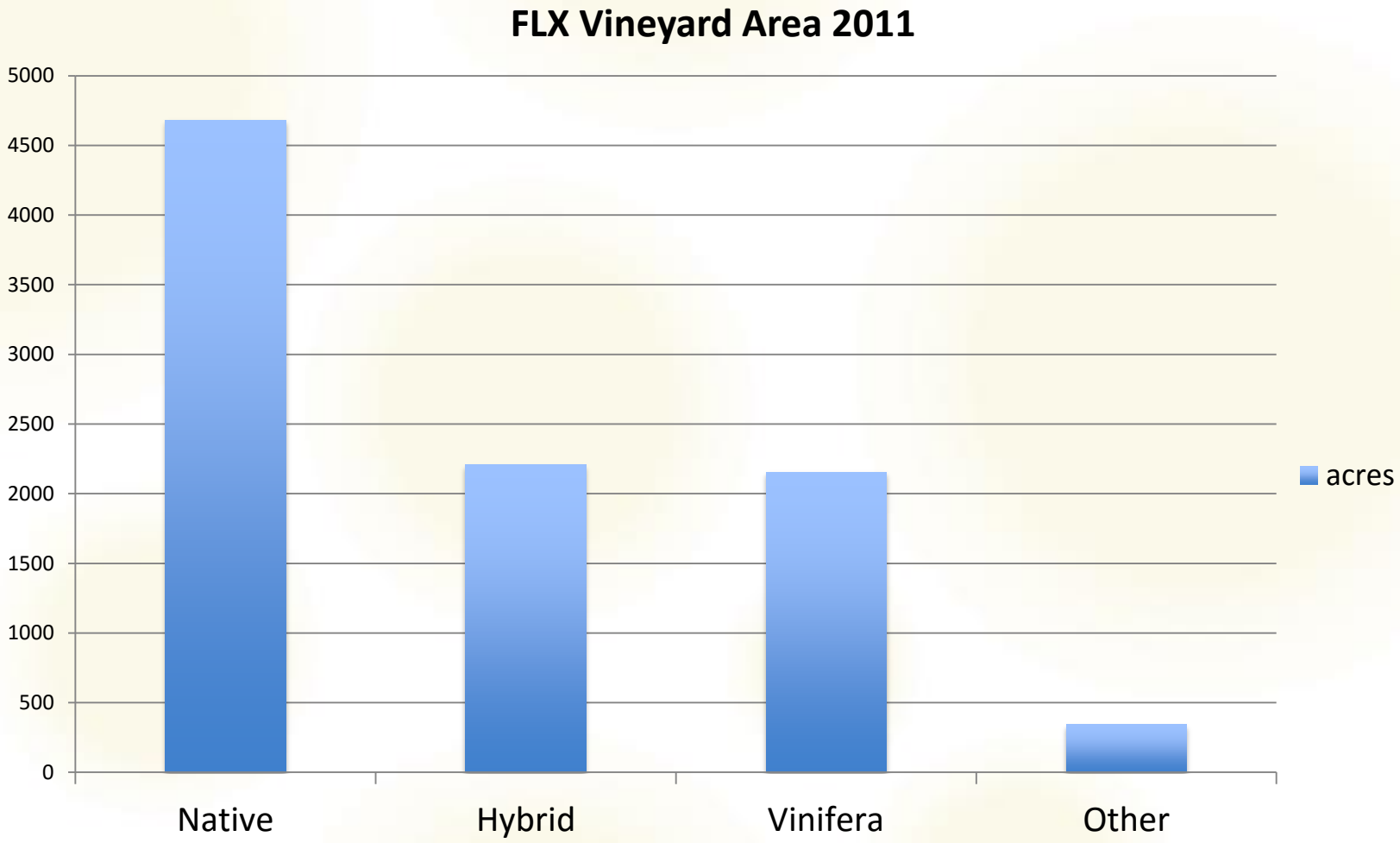
- Ancient glacial activity and flooding created in the Finger Lakes produced very complex soil patterns
- The greatest wine-growing regions in the world, the Finger Lakes proudly among them, have soils rich in:
  - Limestone
  - Shale
  - Gravel
- FLX: Gravelly & low organic sites to loamy & fertile
- **Site-Specificity:** Vineyards planted on varying soils show great minerality and fruit characteristics that are specific to underlying soils

Wineries & Vineyards Today

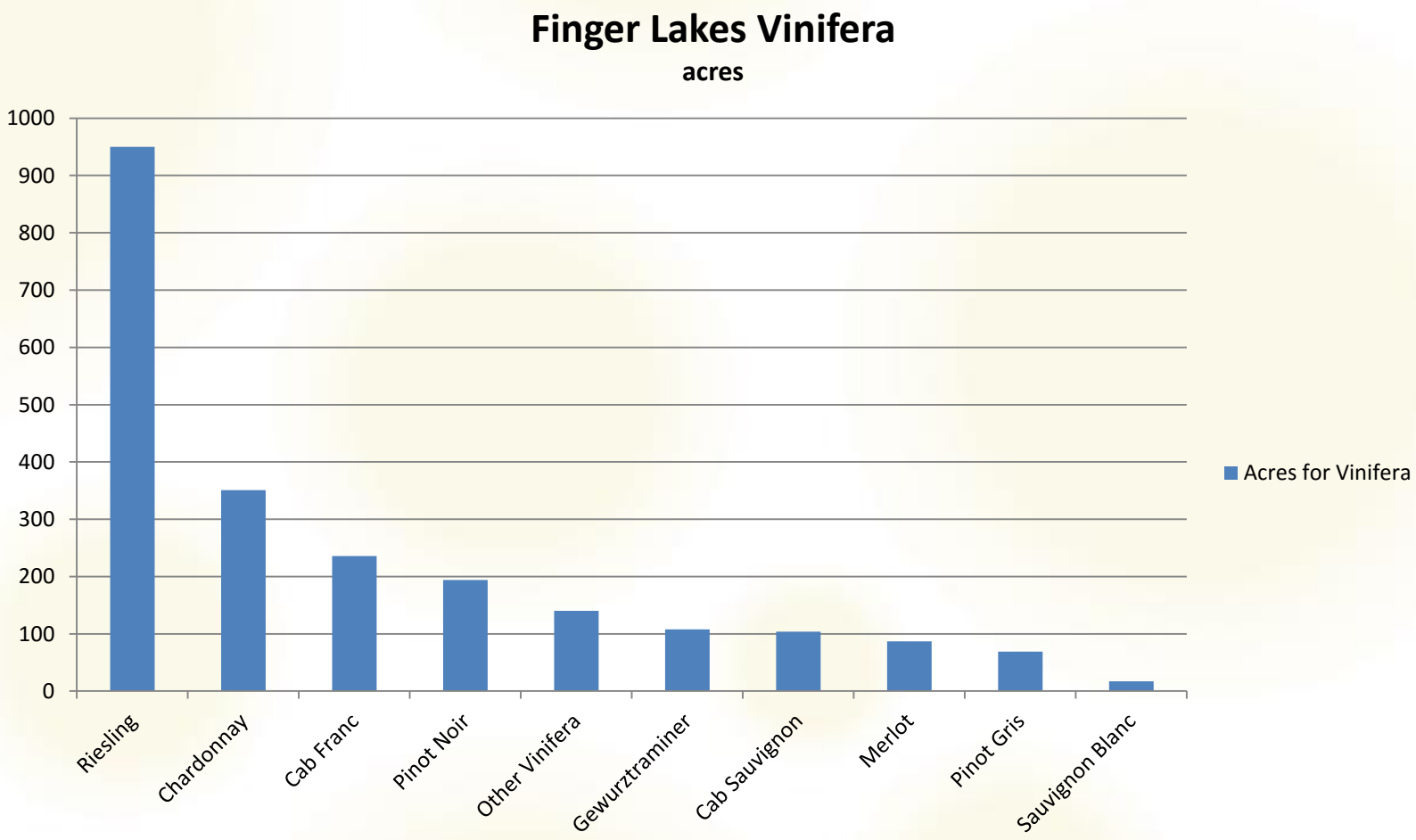
- **Over 130 Finger Lakes wineries**
  - 9,500 acres of grapes
- **23% Vinifera**
  - 2,200 acres
  - 8,400 tons
  - 500,000 cases
- Growing acreage of Vinifera plantings
- Focus on **Riesling (~40%)** & Aromatic Whites (~50%)
- Whites ~65%
  - Chardonnay, Gewurztraminer, Pinot Gris, Gruner Veltliner, Sauvignon Blanc
- Reds
  - Cabernet Franc, Lemberger, Pinot Noir

Wineries & Vineyards Today

2011 USDA Vineyard Survey



Vinifera Plantings



Riesling: King of Finger Lakes Whites

- ~**950** acres
- + 60% since 2006
- ~3800 tons
- ~**230,000** cases
- ~5% of U.S. Riesling market
- Even-distribution of Dry, Med-Dry, Med-Sweet

- Stylistic diversity
- **Dry**
  - Lean, taut
- **Med Dry & Med Sweet**
  - Lush, with balanced acidity
- **Sweet**
  - Dessert-style (Ice Wine, Late-Harvest)
- **Sparkling**
  - Small quantities

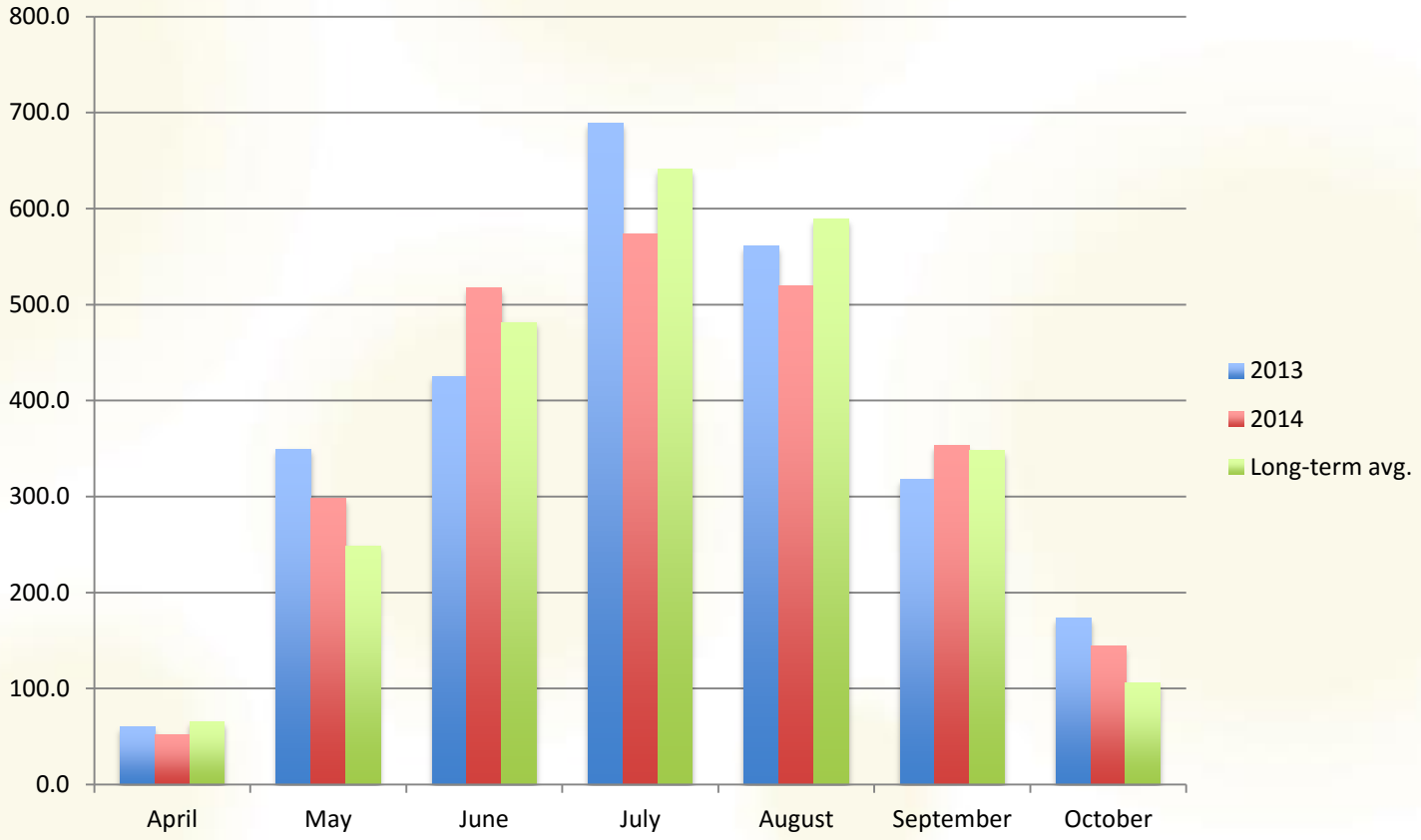
Finger Lakes Vintages

Finger Lakes Vintage Weather
Bob Madill

GDD = growing degree days - over 50 and under 89

	Winter	Spring March & April	Summer May & June	 July & Aug	Fall Sept & Oct	GDD Year	Overall
2010	mild	warm early spring	warm heavy & short rains		short harvest rain in Oct	2924	very warm & wet
2011	average	cool & wet	wet May dry June	hot & dry	overcast, wet	2830	warm & wet
2012	average	warm early spring	dry	dry	early harvest rains in late Sept	2870	exceptional reds & whites
2013	average	slow warming	a bit cooler a bit wetter		dryer ensured ripening	2575	a bit cooler & wetter average wines
2014	colder than norm some injury	average	average	cooler very wet July	normal very dry Sept	2478	close to average fresh whites & reds
2015	colder than norm some injury	a bit warmer	very wet June	a bit drier	warmer & dry Sept an early vintage	2657	lighter crop good balance & expression

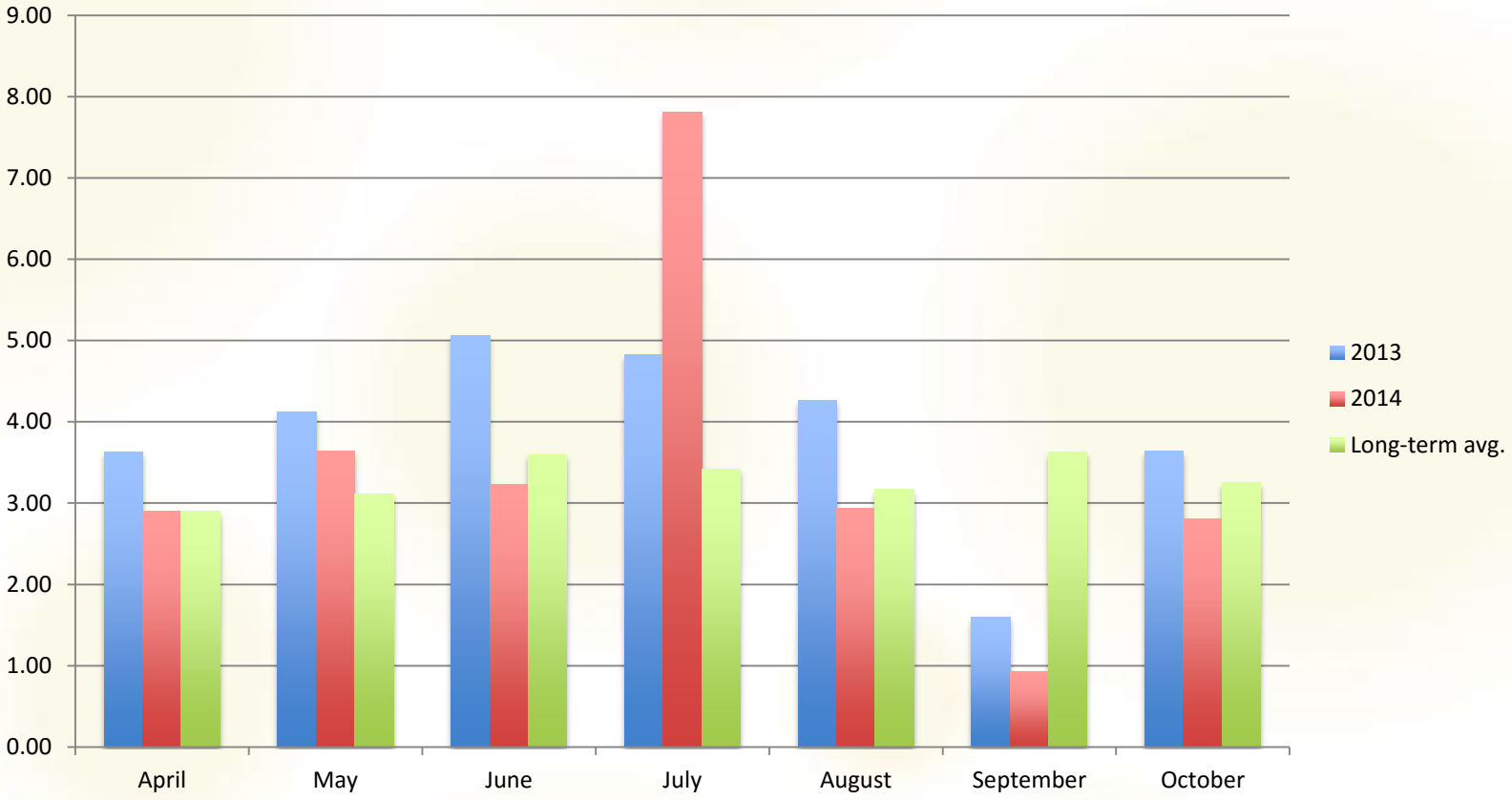
Recent Vintages
Growing Degree Days



LT Avg. = rolling 10 year average

GDD=Sum (Daily Max Temp-Min Temp)/2-50 April to Oct. 31

Recent Vintages Rainfall

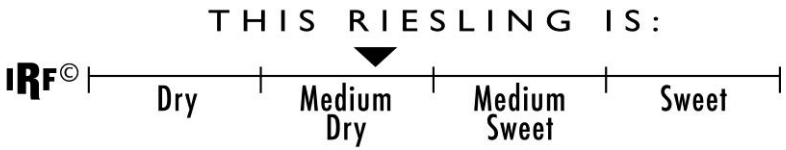


International Riesling Foundation (IRF)

- Riesling Taste Profile
  - A quick way to understand balance
  - Voluntary participation to inform and educate
  - Ratio of residual sugar/acidity

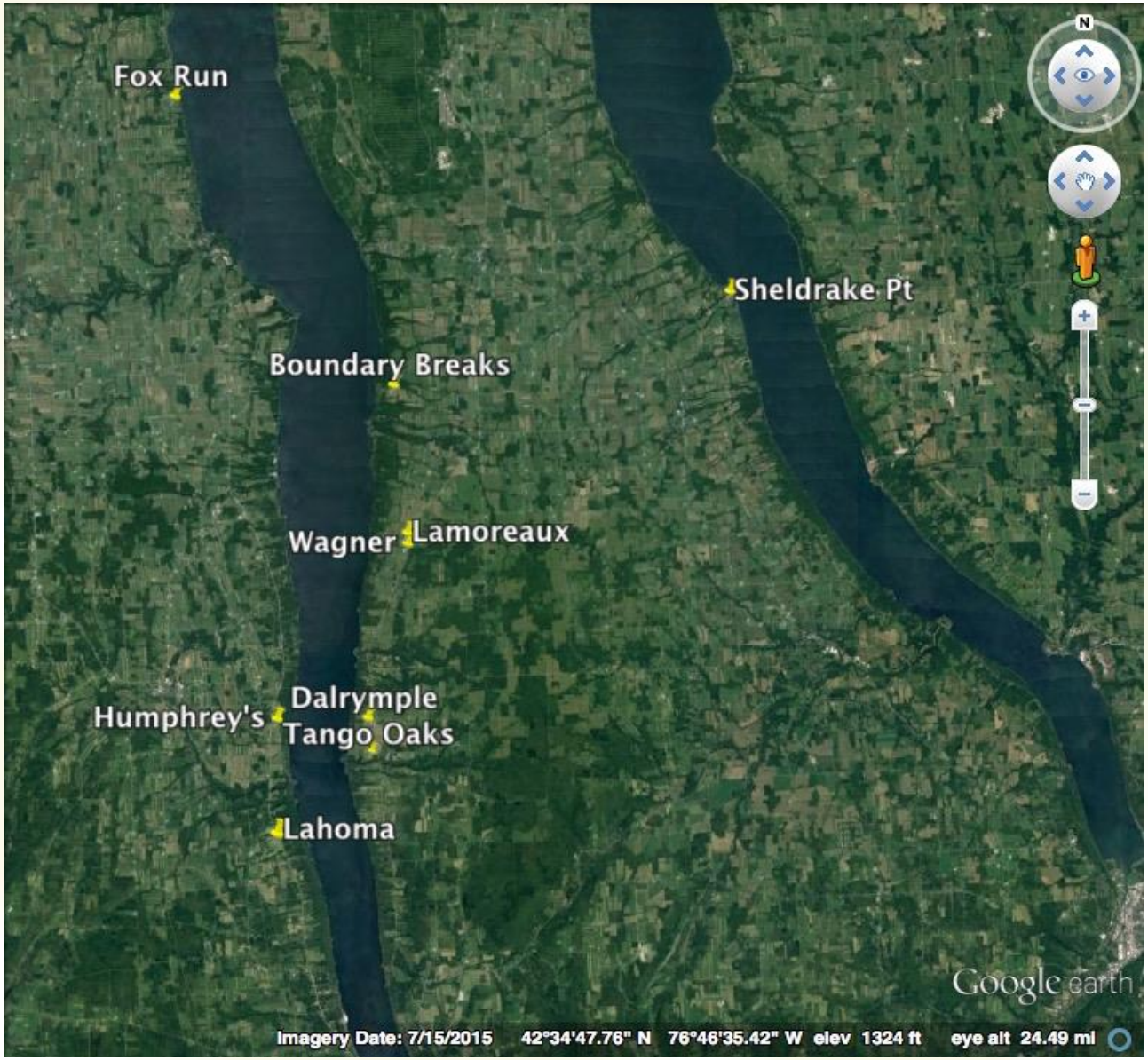
The International Riesling Foundation's Riesling Taste Profile

www.drinkriesling.com



Finger Lakes

FLX Wineries



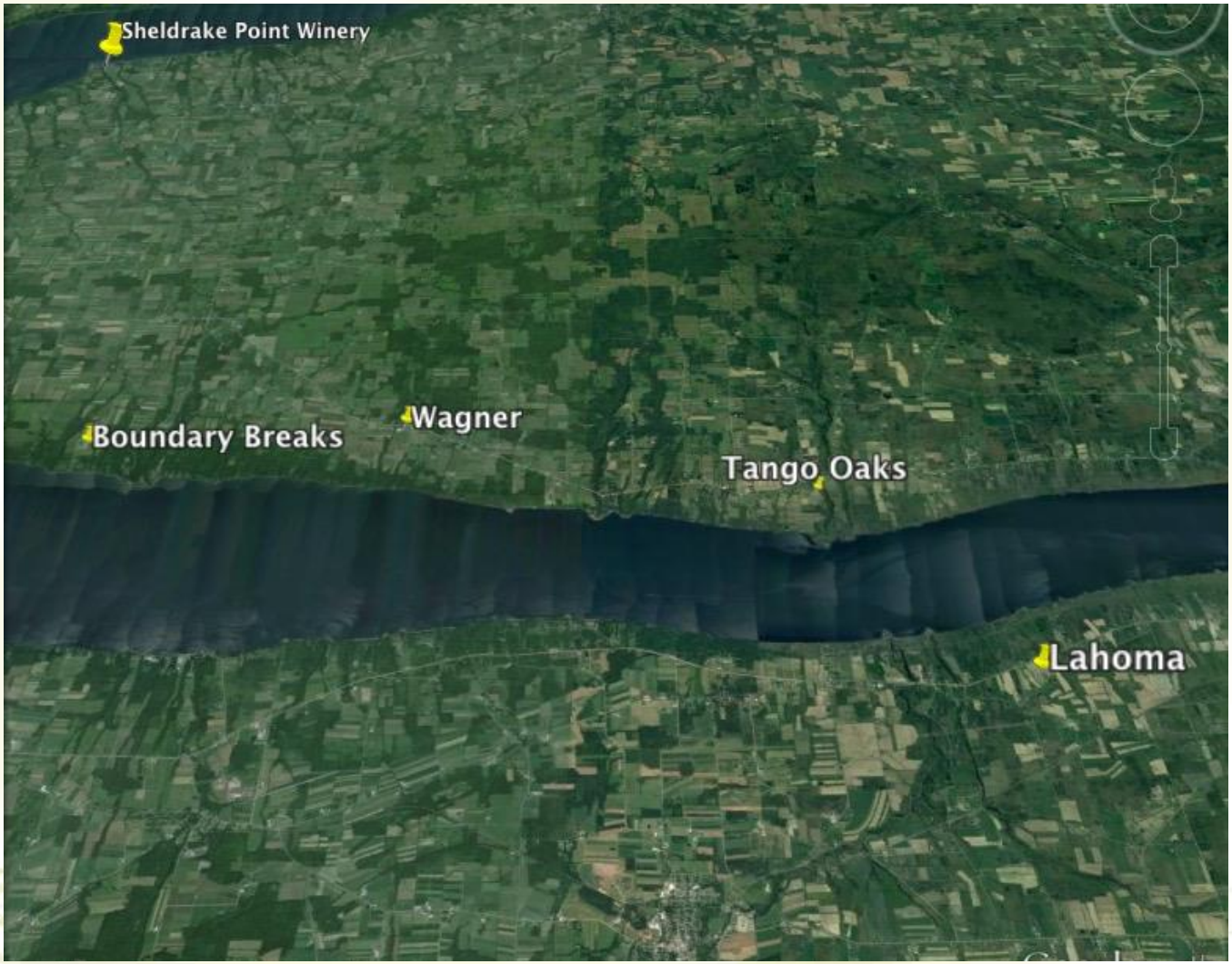
Tasting of FLX Single Vineyard Riesling

1.	Wagner, Dry, Caywood East	2014	$17.99
2.	Red Newt, Lahoma ‘The Knoll’	2014	*$35.00*
3.	Red Newt, Tango Oaks	2014	*$25.00*
4.	Sheldrake Point, Dry, Reserve (blk 2)	2013	$35.00
5.	Keuka Spring, Humphrey’s	2014	$21.99
6.	Boundary Breaks, Dry, ‘239’	2014	$19.95
7.	Lamoreaux Landing, Riesling, Red Oak	2014	$23.99
8.	Glenora, Select Harvest, Dalrymple	2012	$19.99
9.	Boundary Breaks, Reserve, ‘198’	2014	$22.95
10.	Fox Run, Riesling 12, Lake Dana	2012	$30.00

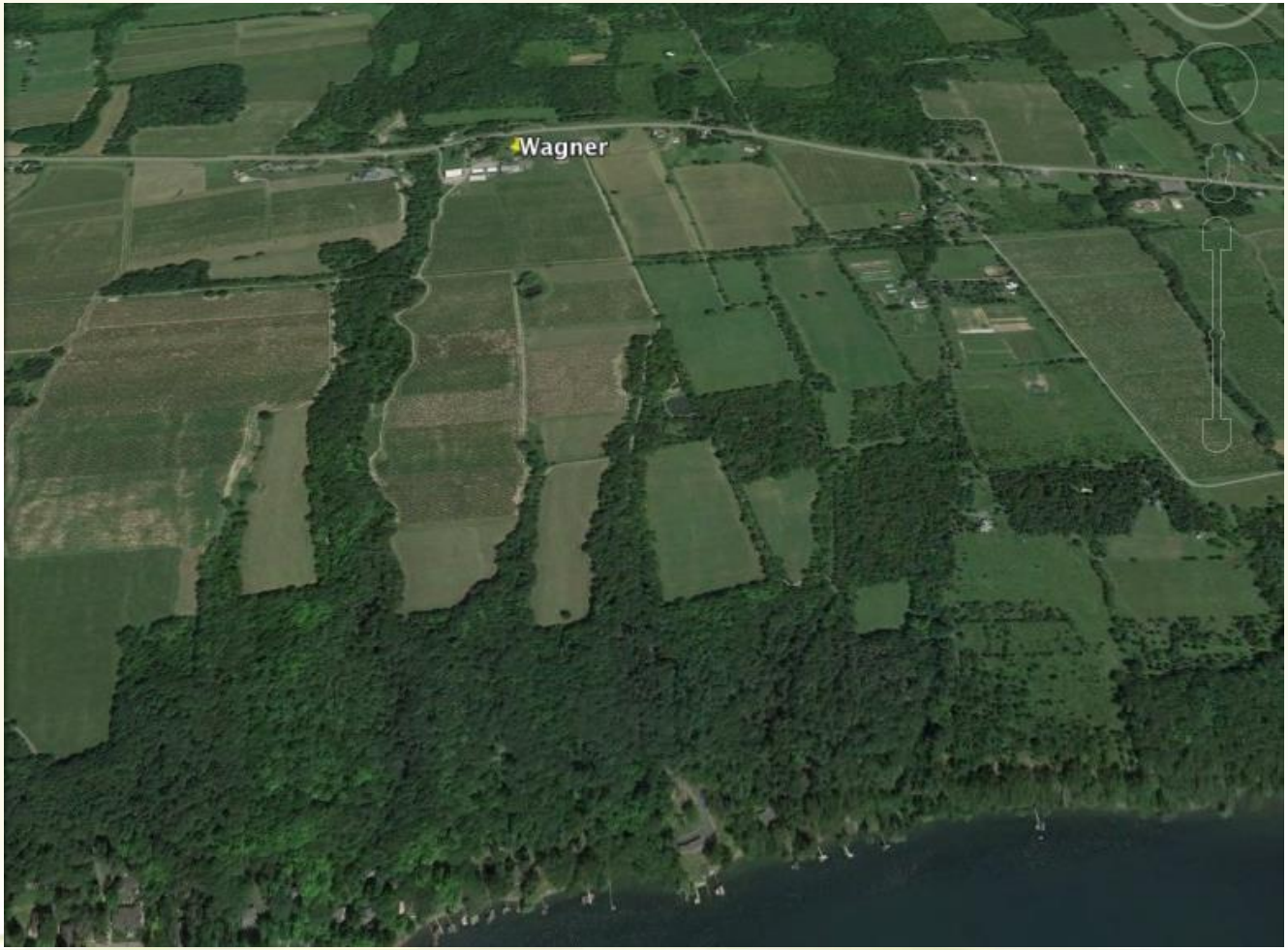
Tasting of FLX Single Vineyard Riesling

	rs	Ta	IRF	pH	alc%	Cases
1. Wagner, Caywood East 2014	5	8.7	0.6	3.0	12.3	497
2. Red Newt, ‘The Knoll’ 2014	5	7.5	0.7	3.1	12.6	177
3. Red Newt, Tango Oaks 2014	4	6.6	0.6	3.3	12.1	121
4. Sheldrake Point, Reserve 2013	7	7.6	0.9	3.0	11.4	184
5. Keuka Spring, Humphrey’s 2014	7	?	~1	3.1	12.0	200
6. Boundary Breaks, ‘239’ 2014	8	7.5	1.1	3.0	12.8	2100
7. Lamoreaux, Red Oak 2014	10	6.3	1.6	3.1	12.2	?
8. Glenora, Dalrymple 2012	39	7.4	5.3	2.9	11.0	387
9. Boundary Breaks, ‘198’ 2014	68	9.8	7.0	2.9	9.4	450
10. Fox Run, Lake Dana 2012	64	7.4	8.6	3.0	11.3	42

Wagner Caywood East (looking East)



Wagner Caywood East



Wagner Caywood East

- West facing & steeply sloped
- In 2005 replanted to Riesling on Scott-Henry
- Three clones - 90, 110, 239 (all German)
- Fermented in separate lots and blended
- Blend – 90 (90%), 110 (5%), 239 (5%)

Red Newt Lahoma & Tango Oaks

Red Newt Lahoma Vineyard

Lahoma ‘The Knoll’

Lahoma ‘The Knoll’

- Seneca Lake, west shore, facing east south east
- 2/3rds of a mile from Seneca Lake
- Owned by Harlan and Kenny Fulkerson
- 100 acres – 40% vinifera
- The Knoll is 2 acres within a 15 acre long term contract
- Planted in 2008 on Lancing and Dunkirk soils
- Sandy soils – excellent drainage & sun exposure - pristine fruit
- Riesling (clone 239 on 3309 rootstock)
- Average yields of 2.4 tons/acre

Red Newt Lahoma & Tango Oaks

Tango Oaks

Dalrymple
Tango Oaks
Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Tango Oaks Faces West

Tango Oaks Howard Gravelly Loam

Tango Oaks

- 5 acre block planted in 2007
- Alsace clone 49 on low vigor 10114 root stock
- Deep gravel over shale – low vigor
- Well drained & west facing
- Great sun exposure
- Reductive winemaking – prefermentation cold soak and lees contact

Sheldrake Point Vineyard

Sheldrake Point Vineyard

Sheldrake Point Block R2

Sheldrake Point Block R2

- Established in 1997 – 40 acres planted
- R2 faces East at top of vineyard
- Planted in 1999 – clone 239
- Least vigorous and driest block
- Small berries and clean fruit
- Reserve wine initiated in 2003
- Minimal intervention – only yeast, nutrients, SO2
- Held back for one year

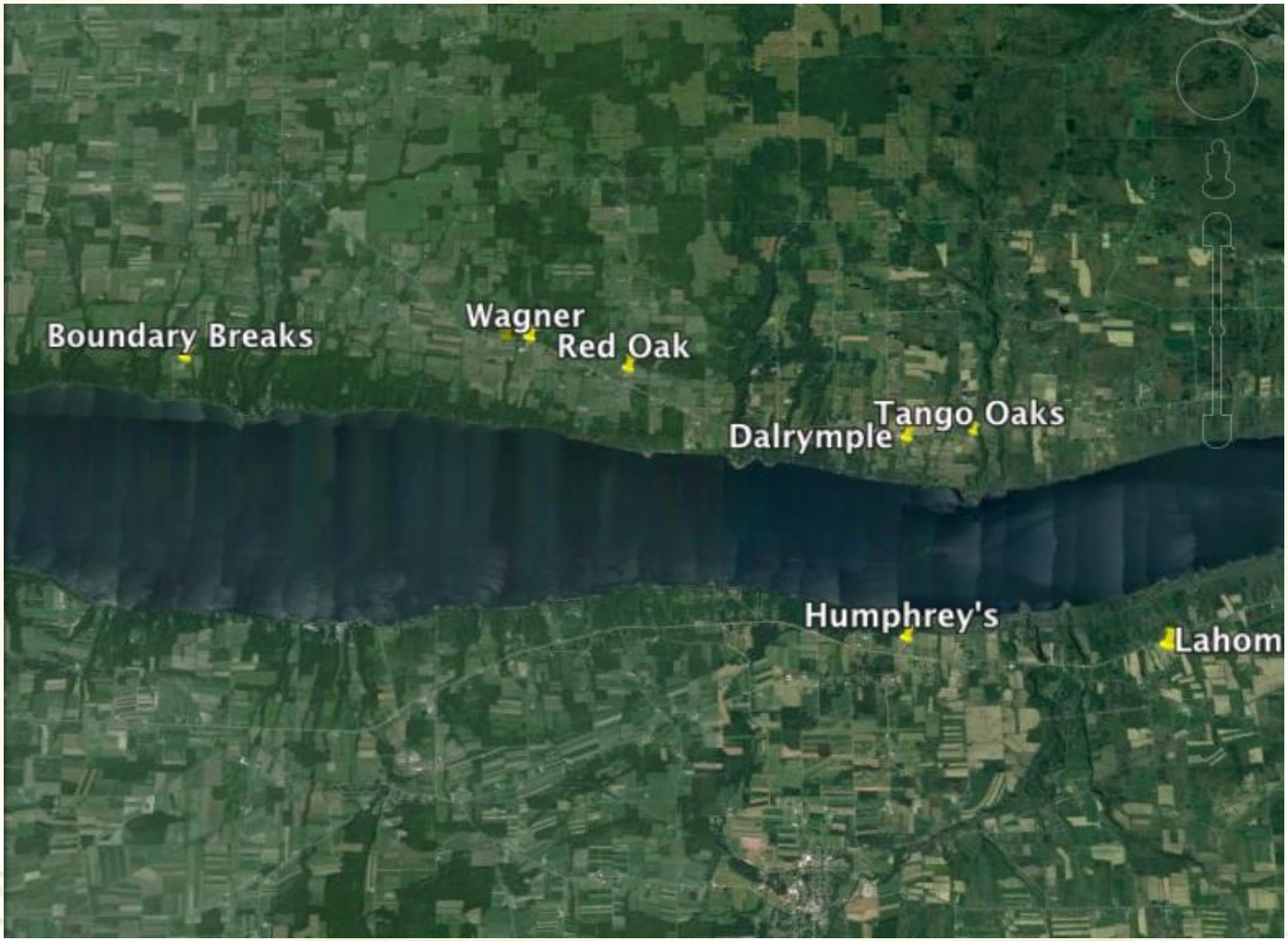
Keuka Spring Humphrey's Vineyard

Humphrey’s Vineyard

Humphrey's Vineyard

- Facing east on a gentle slope near to Seneca Lake
- Rows run east to west – most in the FLX are north to south
- Picked later than other blocks as ripens more slowly
- "Winery of the Year" 2016 - Riesling & Gewurztraminer

Boundary Breaks



Boundary Breaks

Boundary Breaks Vineyard

Boundary Breaks Vineyard

- East side Seneca Lake facing west – sun exposure.
- Close to lake (temperature moderation)
- Planted in 2009 and 2010 as single clone (genetically identical) blocks.
- Picked on October 28, 2014 at 23.5 brix (13.4% alc.)
- Auslese is 20 to 23.9 brix – Clone 239 is

~ Auslese Trocken

Lamoreaux Landing Red Oaks

Lamoreaux Landing Vineyards

Red Oak Vineyard

Dalrymple Vineyard

Glenora Select Harvest Riesling from Dalrymple Vineyard

Dalrymple Vineyard

- 40 year old vines on the East side of Seneca Lake
- Face West – sloped and well drained

Glenora Select Harvest Dalrymple Vineyard

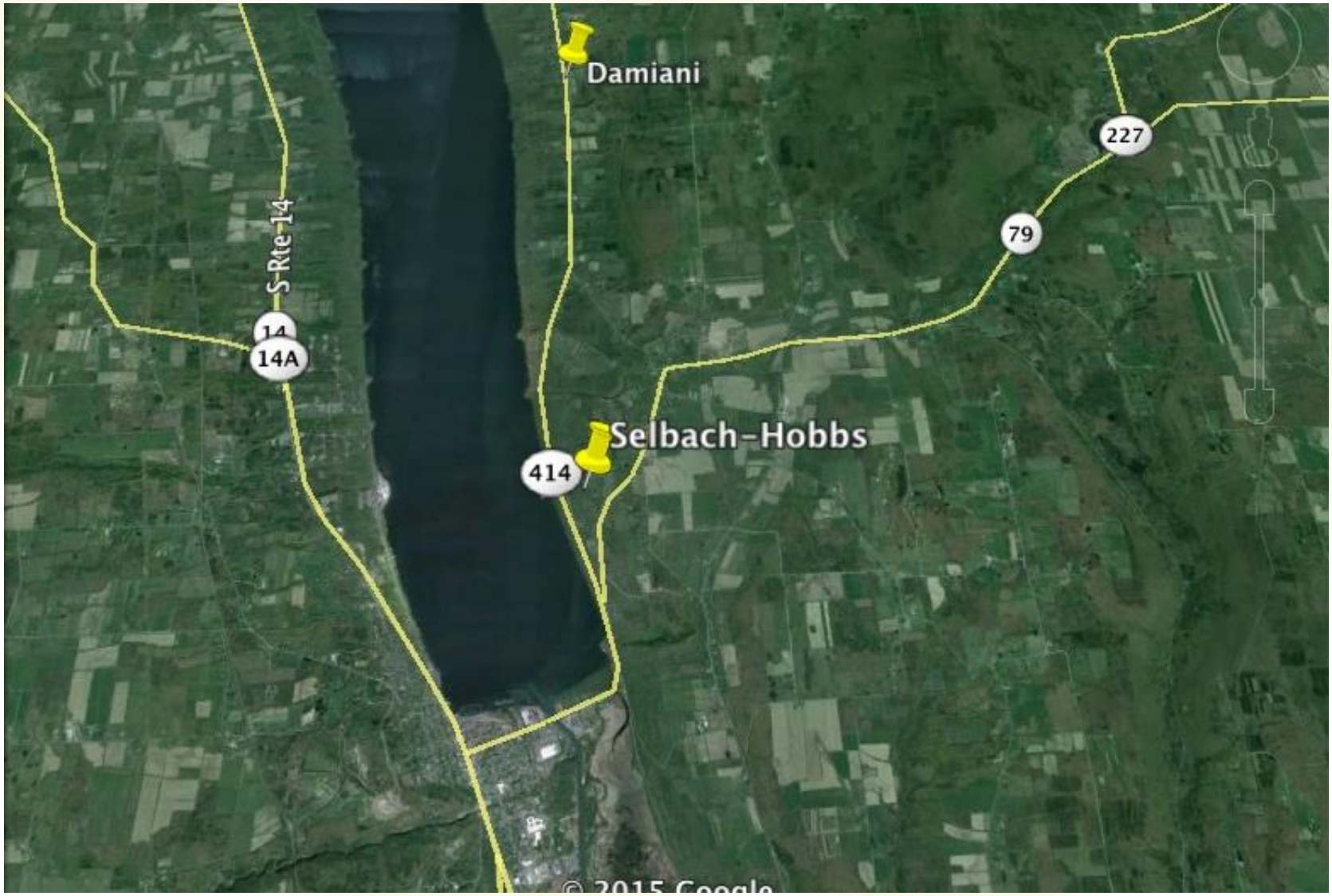
Fox Run Lake Dana Vineyard

Fox Run Lake Dana Vineyard

Fox Run Lake Dana

- Planted in 1989
- Facing East
- Well drained soils

Selbach-Hobbs Project



Selbach-Hobbs Vineyard

- Johannes Selbach (Mosel) & Paul Hobbs (California, Argentina
- 67 acres on steep, west facing slope
- Shale
- ~ 23 acres Riesling planted to date east to west (up and down slope)
- FLX sourced vines
- 1815 vines per acre average
- 2.3 acres planted in 2014 at 2400 vines/acre

Selbach-Hobbs Vineyard Site

August 2016

Selbach-Hobbs Vineyard Site

August 2016

Vineyard Site Spring 2016

Acknowledgements

- Finger Lakes Wine Alliance
  - www.fingerlakeswinealliance.com
- Cornell Cooperative Extension Finger Lakes Grape Program
  - www.flgp.cce.cornell.edu/
- Society of Wine Educators
  - www.societyofwineeducators.org/

Acknowledgements

- Wagner Vineyards
- Chateau Lafayette Reneau
- Hector Wine Company
- Sheldrake Point Winery
- Keuka Spring Vineyards
- Thirsty Owl Wine Company
- Damiani Wine Cellars
- Red Newt Cellars Winery
- Chateau Frank
- Glenora Wine Cellars

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Thank you!

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