Wines of Ningxia, China – Old World or New World or Unique

Presented by

Houghton Lee & Tommy Lam
SWE Hong Kong Chapter & SWE China Liaison

with special guest

Society of Wine Educators
40th Annual Conference
13th August 2016
Washington DC

Why Ningxia now?

• Young and fast growing region
• Wines are ready
• Most covered by English language world
• Many new start-up, sense of community
• Educators to Educators
Objectives

- Learn the province, terroirs, varietals, sub-regions, viticulture.
- Taste the wines, explore the styles (OW ? NW? or Unique?)
- Know the winemakers and owners
- Understand Ningxia and China

Run-Down

- General Introduction
- Ningxia
- Terroirs, Varieties, Sub-Regions, Viticulture
- Wines & Wineries
- Q&A
Run-Down

- General Introduction
- Ningxia
- Terroirs, Varieties, Sub-Regions, Viticulture
- Wines & Wineries
- Q&A

Welcome --

Mr Cao Kailong

Deputy Director of Administration of Development of Grape Industry of Ningxia
Run-Down

• General Introduction
• Ningxia
• Terroirs, Varieties, Sub-Regions, Viticulture
• Tasting & Wineries
• Q&A

General Information
Of
Ningxia
WHEREABOUTS

China - USA
Here is Ningxia (NX)
Fast Facts of Ningxia

- Provincial Population
  - 6.3 million (2010)
  - Size of Tennessee (2010)
  - 1/3 are Hui minority group; Islamic holidays are observed.

- Area = 25,637 sq-mi
  - just bigger than West Virginia

- Provincial seat = Yinchuan

Wine Regions in China

Houghton Lee © Aug 2016
Quick Wine Facts of China
### Ranking by Production (Unit: mhl)

<table>
<thead>
<tr>
<th>2013</th>
<th>2014 (prov.)</th>
<th>2015 (f/c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Italy (54)</td>
<td>France (46.5)</td>
<td>Italy (49.5)</td>
</tr>
<tr>
<td>2 Spain</td>
<td>Italy</td>
<td>France</td>
</tr>
<tr>
<td>3 France</td>
<td>Spain</td>
<td>Spain</td>
</tr>
<tr>
<td>4 USA (23.6)</td>
<td>USA (22)</td>
<td>USA (22.1)</td>
</tr>
<tr>
<td>5 Argentina</td>
<td>Argentina</td>
<td>Argentina</td>
</tr>
<tr>
<td>6 Chile</td>
<td>Australia</td>
<td>Chile</td>
</tr>
<tr>
<td>7 Australia</td>
<td>China (11.6)</td>
<td>Australia</td>
</tr>
<tr>
<td>8 China (11.8)</td>
<td>South Africa</td>
<td>South Africa (11.2)</td>
</tr>
<tr>
<td>9 South Africa</td>
<td>Chile</td>
<td>China (11)</td>
</tr>
<tr>
<td>10 Germany (8.4)</td>
<td>Germany (9.2)</td>
<td>Germany (9)</td>
</tr>
</tbody>
</table>

Source: OIV April 2016

Note: China’s total wine-grape growing area is estimated by local industry to be <130K Hectare, contrast to OIV claimed 800K Ha.

### Ranking by Consumption (Unit: mhl)

<table>
<thead>
<tr>
<th>2013</th>
<th>2014 (prov.)</th>
<th>2015 (f/c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 USA (30.3)</td>
<td>USA (30.7)</td>
<td>USA (31)</td>
</tr>
<tr>
<td>2 France</td>
<td>France</td>
<td>France</td>
</tr>
<tr>
<td>3 Italy</td>
<td>Italy</td>
<td>Italy</td>
</tr>
<tr>
<td>4 Germany</td>
<td>Germany</td>
<td>Germany</td>
</tr>
<tr>
<td>5 China (16.5)</td>
<td>China (15.5)</td>
<td>China (16)</td>
</tr>
<tr>
<td>6 UK</td>
<td>UK</td>
<td>UK</td>
</tr>
<tr>
<td>7 Argentina</td>
<td>Argentina</td>
<td>Argentina</td>
</tr>
<tr>
<td>8 Russia (10.4)</td>
<td>Spain (9.9)</td>
<td>Spain (10)</td>
</tr>
</tbody>
</table>

Note: China was 17.1mhl in 2012

Source: OIV April 2016
Back to Ningxia...

Brief History of NX Viticulture

• 215BC - General Mengtian was sent by Qin Dynasty emperor to drive away the Huns and built an advanced irrigation network in Helan Mtn foothill.
• 620-900AD - Organized vineyards in Tang dynasty.
• 1038-1227AD – Xixia (normad) Empire, their architectural remains are the tombs
Modern History of NX Viticulture

• 1982 - International varieties were brought to Ningxia's Yuquanying Farm (玉泉營農場)

• 2003 - Geographical Indication Protection (GIP-地理标志保护产品) approved for Helan Mountain East Foothill region by the General Admin of Quality Supervision, Inspection & Quarantine (国家质检总局)

• 2003 - David E Henderson began "Dragon's Hollow" Operation in Helan Mountain.

• 2011 - Jiabelan Grand Reserve 2009 won the International Trophy for Red Bordeaux Varietals at Decanter World Wine Award

• 2012 - Administration of Development of Grape Industry of Ningxia was founded. Ningxia was admitted to OIV as the first provincial observer (省级观察员)

Still a very young region!!

Wine Facts of Ningxia

2015

• No. of operating wineries = 85
• Developed vineyard area = 87,300 acre
• Area with 5+ year vines = 57,000 acre
• Total Production (2015)= 750,000 hl
• Wine industry econ impact = USD 2.5B
• Employment = 75,000

All wine regions in the north of province and east of Helan mountain range

Ningxia & SWE
SWE 1st Mini-Conference in China
12-13 July 2016, Yinchuan Kempinski

Hong Kong Chapter Visit
September 2013
Run-Down

- General Introduction
- Ningxia
- Terroirs, Varieties, Sub-Regions, Viticulture
- Wines & Wineries
- Q&A

TERROIRS

VARIETIES

SUB-REGIONS

VITICULTURE
TERROIRS

1. Topography
2. Climate
3. Soils
4. Alluvial fans

VARIETIES

SUB-REGIONS

VITICULTURE

Terroirs

• Topography
• Climate
• Soils
• Alluvial Fans
Topography - China

- Whole country is like steps going down from west to east.
- Notice the direction of yellow river

Topography - Ningxia

- South is ‘higher’ than north.
- Yellow river flows north.
- Helan Mtn blocks cold wind
- Wine region in or near the middle verdant basin
About Helan Mountain

Helan Mountain Features

- 200 km (138mi) long from NE-SW
- 20-40km (13-25mi) width
- The tallest peak at 3556m (11,666ft)
- More than 30 passes (E-W)
  - cold dry wind blows through
  - alluvial fans extend from passes
Altitude

- Vineyards lie on the foothill of altitude between 3600ft-4260ft (1100-1300m)
Terroirs

• Topography
• Climate
• Soils
• Alluvial Fans

Climate of Wine Region

• Temperate dry continental
• Precipitation 7.6in (193mm) – July to Sept
• Annual ave temp 46-50 ºF (8-10 ºC)
• Diurnal 21-27ºF (12-15ºC)
• Sunshine 1700-2000 hours
• Frost-free period 160 – 180 days
• Both early & late frosts are key consideration!
Monthly Ave Rainfall

Precipitation

- Raining season **July – early Sep**, this is one factor for vintage variation
- Average **7.6in** (193mm); range 150-240mm (**6in-9.5in**)
- High evaporation 1500mm (60in)
- More rain in north than south of region
- More the rain in the **mountain** area
Temperatures (implication?)

Source: Weatherbase.com

Terroirs

- Topography
- Climate
- Soils
- Alluvial Fans
Soils of Region

• Sierozem
• Aeolian
• Irrigation Warped

Soil Types

• Sierozem
  – main soil of the region
  – variation between vineyards is due to the different ratios of the gravel, sand and clay texture

• Aeolian
  – influence of nearby desert
  – Mainly east of highway 110 (S-N running)
  – ratios of sierozem and aeolian differ btw sub-regions

• Irrigation Warped Soil
  – near Yellow River
  – Silt and more fertile
What is Sierozem?

- arid alkaline calcareous gray or grayish brown soil
- sub-order of aridosol (USDA)
- sandy loam with gravels.
- good drainage
- low organic (0.5-2.5 %)
- pH 8-9
- possible ‘future’ unique soil term

Terroirs

- Topography
- Climate
- Soils
  - Alluvial Fans
Alluvial Fans

- Along Helan Mountain East Foothill
- Formed by years of flooding, since 300,000 years ago
  - Flooding in rain season today
- Closer to the mountain, more stones (cobbles, boulders)

Major alluvial fans along southern HLM East Foothill west of highway 110

1. Dashuigou (大水沟)
2. Chaqikou (插旗口)
3. Suyukou (苏峪口)
4. Baisikou (拜寺口)
5. Huangqikou (黄旗口)
6. Gankou (甘口)
7. Sanguankou (三岔口)
Why fans are significant?

- Most vineyards are lying on one of the fans.
- Ratio of gravel depends on how far the vineyard is located from the mountain.
- Corresponding mountain passes or gaps allow air from Tengger Desert, causing afternoon hot air & evening cool air. (wind turbines at some of the gaps)

Sanguankou (三关口) Pass

Following down the fan slope

Guanlan Helanqingxue Lilan

Highway 110
### Ningxia

#### TERROIRS

#### VARIETIES

#### SUB-REGIONS

#### VITICULTURE

### Varieties

<table>
<thead>
<tr>
<th>White</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chardonnay</td>
<td>Cab Sauvignon</td>
</tr>
<tr>
<td>Italian Riesling</td>
<td>Merlot</td>
</tr>
<tr>
<td>Riesling</td>
<td>Cab Franc</td>
</tr>
<tr>
<td>Vidal</td>
<td>Pinot Noir</td>
</tr>
<tr>
<td></td>
<td>Syrah</td>
</tr>
<tr>
<td></td>
<td>Marselan</td>
</tr>
<tr>
<td></td>
<td>Petit Verdot</td>
</tr>
<tr>
<td></td>
<td>Bei Mei</td>
</tr>
<tr>
<td></td>
<td>Bei Hung</td>
</tr>
</tbody>
</table>
Varieties

• White << Red ratio
• Leading white – Chardonnay (aro 70% of white)
• Leading Red – Cab Sauvignon (aro 70% of red)

Varieties

• Bei-mei (北玫) and Bei-hung (北紅)
  – local hybrid of Muscat Hamburg and Vitis Amurensis.
  – both are cold-resistant. Nood need to bury vines

• Marselan (马塞兰)
  – cross of Cabernet Sauvignon and Grenache
  – by Paul Truel near Marseillan in Hérault
  – resistant to botrytis, oidium, downy mildew
  – China is the biggest grower outside of France
Ningxia

TERROIRS

VARIETIES

SUB-REGIONS

VITICULTURE

Sub-regions

• 6 sub-regions
• 5 belong to the Helan Mountain East Foothill GIP Region
• Demarcation based on admin convenience although some variations of terroir characters exist
All Sub-regions in the north

Most wineries are near highway 110
Very close to Tengger Desert, need protection from desert wind.

Shizuishan 石嘴山
- More aeolian sands, longer logistics. Fewer wineries.

Yinchuan 银川
- Most gravelly, costly to remove all stones before viticulture. Most on alluvial fans. - 8,500 acres

Yongning 永宁
- Locations of the most historical sub-sub-regions-Huangyangtan and Yuquanying. More variation of soil types. - 24,700 acres

Qingtongxia 青铜峡
- More windy and drier. Longest sunshine. Sandy and small gravels. Main grape supplier. - 17,300 acres

Hongsipu 红寺堡

Zhongwei 中卫*
- Very close to Tengger Desert, need protection from desert wind.

* Zhongwei does not belong to HLM East Foothill GIP Region
Ningxia

TERROIRS

VARIETIES

SUB-REGIONS

VITICULTURE

1. Banking
2. Training
Viticulture

- Banking (vine-burying)
- Training

Banking (burying)

- Vines need to be buried when lowest temperature in winter is below 5°F (-15 °C).
- Most Ningxia wine region are below 5 °F in Dec / Jan and as low as -7°F (-22°C).
Burying times in Ningxia

Considerations are **winter frost** and **spring frost**

<table>
<thead>
<tr>
<th>Bury:</th>
<th>Unearth:</th>
</tr>
</thead>
<tbody>
<tr>
<td>late Oct - mid Nov</td>
<td>Late Mar – mid April</td>
</tr>
</tbody>
</table>

**Another Reason for Burying**

- Dehydration by winter’s dry wind
Key issues of burying vines

- Require a lot of trained labor and costs
- Can cause death if mishandling
- Experiment on Bei-mei and Bei-hung may be some future answers

Viticulture

- Banking (vine-burying)
- Training
Training

Need for banking is major consideration

- Single-Dragon Backbone
- “Chang” character – 

And other training systems being experimented!
**Training**

Single Dragon Backbone
(独龙干)
- The most popular training form
- Easier to snap when burying when vine grows older
- Hard to prune

“Chang” character (厂字型)
- Chang is Chinese character “厂”, like an inclined Cordon de Royat.
- No formal English translation
- Easier for burying action
- Even ripeness for bunches
- Easier to calculate yield

And other training systems being experimented!

**Run-Down**

- General Introduction
- Ningxia
- Terroirs, Varieties, Sub-Regions, Viticulture
- Wines & Wineries
- Q&A
Old World or New World or Unique ??

1
1. Kanaan Winery Riesling 2013 (12%)

100% Riesling
TA=5.8
pH=3.25
RS=3.5

Kanaan (迦南)
Subregion: Yinchuan
Owner: Crazy Fang
Area: 42 acre
F: 2011
1st Vintage: 2013
Vol: 63,000 bottles
Award: Pretty Pony
2013 - Regional Trophy Decanter
2015
Kanaan (迦南)

Father-daughter
“Crazy” by JR
Husband-Riesling
Exodus 3:17
‘K’ German spelling
2. Legacy Peak Chardonnay 2014 (13.5%)

100% Chardonnay
New French oak- 9 mo
TA=6.4
pH= 3.67
2014 is their first chardonnay vintage

Legacy Peak (留世)

Subregion: Yinchuan
Owner: Liu Hai
Area: 66 acre
F. 2013 (grow since 1997)
1st Vintage: 2011
Vol: 80,000 bottles
Award: Legacy Peak Estate
2011 - Gold Medal from China Wine & Spirits Award
2014
Legacy Peak (留世)

- Father-son
- Grow grapes since 1997 – many vv
- Supposed best terroir – next to emperor tombs?
- Sold grapes to others
3. Sha Po Tou Cabernet Gernischt 2013

abv:= 13%
100% Cabernet Gernischt
New French oak - 24 mo.
TA=5.8  pH=3.86

Ningxiahong Sha-Po-Tou

Subregion: Zhongwei
Owner: Zhang Jinshan
Area: 68 acre (30 are CG)
F. 2000  (grow since 1998)
1st vintage: 2009
Vol: 80,000 bottles.
Award: 2013 CG won the RVF (revue du vin de France) Bronze 2016
Ningxiahong Sha-Po-Tou

- Mother group is huge producer of wolfberry products including wolfberry wine
- Cab Gernischt grows close to desert; quite good reputation among locals
- Sha-Po-Tou is a famous desert resort
4. Domain Pushang Marselan 2014 (14%)

90% Marselan; 10% Cabernet Sauvignon

US 30% / French 70% (both 2nd time barrel) - 12 months.

TA=6.1

Domain Pushang (蒲尚)

Subregion: Yinchuan
WM: Jiang Jing
Area: 16 acre
F. 2013 (grow since 2009)
1st Vintage: 2013
Vol: 40,000 bottles.

Awards:
• 2013 Marselan -- 2015 Decanter Silver
• 2014 Marselan – 2015 Bruxelle
• 2014 Marselan -- 2016 RVT Bronze
Domain Pushang (蒲尚)

- Young couple.
- Wife now full-time winemaker
- Pushang = Grape of Nobility
- Marselan because it is unique. Willing to take business risk.
5. Ch. Zhihui Yuanshi Son of Mountain 2011

- abv=13.5%
- 80% Cab Sauvignon; 20% Merlot
- New French Oak-16 mo.
- TA=5.5  pH=3.61

Ch. Zhihui Yuanshi (志輝源石)

Subregion: Yinchuan
Owner: Yuan Hui
Area: 140 acre
F. 2013 (grow since 2008)
1st Vintage: 2010
Vol: 100,000 bottles
Award: Son Of Mountain
    2013 -- Decanter
    2015 Silver
Ch. Zhihui Yuanshi (志輝源石)

- Father-Daughter
- Daddy a quarry miner.
- Impressive stone architecture
- Full-fledge winery, can run events
- Yuan=surname; Shi=stone
- Famous for their mountain’s series
6. Jiabeilan Qingxue 2013 (13%)

- 60% Cab Sauvignon,
- 40% Merlot

- new French oak 30%;
- old French /European oak 70%--12 mo

- TA=5.8  pH=3.75

Helanqingxue / Jiabeilan

- Subregion: Yinchuan
- WM: Helen Zhang
- Area: 58 acre
- F: 2005
- 1st Vintage: 2005
- Vol: 56,000 bottles

Awards:
- Special reserve 2009- Decanter World Wine Award 2011
- Jiabeilan Rosé 2014-- Decanter Silver 2015
- Jiabeilan special reserve 2014 RP 91
- Jiabeilan 2014 RP 90
Helanqingxue / Jiabeilan

- Earliest boutique winery.
- Assisted by Li Demei
- Famed by Decanter
- Small plot of lands, need to buy berries
- Partly owned by Grape Industry Association
7. Kanaan Winery Pretty Pony 2013 (14%)

90% Cabernet Sauvignon
10% Merlot
Regional Trophy (2015 Decanter)

French 50%);
Hungarian oak 50%;
(new 60%: old 40%)
--13months
TA=5.6  pH=3.64
8. Silver Heights The Summit 2013 (14%)

65% Cab Sauvignon, 35% Merlot

French Oak
(new 80% : old 20%) - 16 months

TA=4.5  pH=4.1

Gaoyuan Silver Heights

Subregion: Yinchuan
WM: Emma Gao
Area: 120 acre
F: 2007
1st Vintage: 2007
Vol: 60,000+ bottles

Awards:
• The Summit 2013 - Ningxia Rating 95/100 on Gilbert & Gaillard
• Summit 2014 -- RVF Bronze 2016
• Family Reserve Chardonnay 2014 – PR 91
• Emma’s Reserve 2011 – RP 91
Gaoyuan Silver Heights

- Legendary father-daughter;
- Also wife-husband team
- Tough personalities
- Most covered in English media
- Multi-lingual
- Dedicated to quality

In-city winery; now finally have own land; 2015 first vintage of the new vineyard
9. Legacy Peak Cabernet Sauvignon & Merlot 2012 (14.5%)

85% Cab Sauvignon, 15% Merlot

New French oak - 19 months

TA=5.7  pH= 3.56
Run-Down

• General Introduction
• Ningxia
• Terroirs, Varieties, Sub-Regions, Viticulture
• Wines & Wineries
• Q&A

FINALE
Many young people join the wine industry here. Many are from the coastal area vs. the recent historical trend.
Recommended Reading

**THIRSTY DRAGON**

*China’s Lust for Bordeaux and the Threat to the World’s Best Wines*

_SUZANNE MUSTACICH_

---

**AGE OF AMBITION**

*Chasing Fortune, Truth and Faith in the New China*

_EVAN OSHOS*

---

Recommended Website

Grapewallofchina.com

- By Jim Boyce
Compliments

- Administration of Development of Grape Industry of Ningxia
- Our members in China and Hong Kong
- Society of Wine Educators Hong Kong Chapter
- Roger Bomrich MW for his generous logistics advices
- All the good people – winemakers, vineyard workers, winery staff, owners, drivers – in Ningxia

Contact

Houghton Lee, CWE, CSS
Society of Wine Educators
Hong Kong Chapter
htnlee.swehm@yahoo.com
References