Wine Law and Alcohol & Health

Wine 3
Introduction to Enology

Tonight’s Lecture
- Wine Law, history and background
- State and Federal wine laws
- Winery operation and labeling law
- Alcohol & Health
  - Physiological effects of alcohol
  - Positive and negative effects of wine consumption
- Final review

Final Exam
- Next Tuesday at regular class time.
- Bring Scantron, #2 pencil & calculator
- About 50-60 questions
- Bring calculator

Introduction
- The business of wine and alcohol is more heavily regulated than any other legal product in the United States with the possible exception of cigarettes.
- Multiple agencies at the federal, state, and local level all regulate the production, distribution, and sales of wine.

Introduction
- There are numerous laws at every level of government that control wine and there is little uniformity between state and local districts.
- These conditions make for a confusing array of wine laws across the United States.

Introduction
- The laws have two principle aims:
  - First to collect taxes,
  - Secondly to control (limit) consumption
The Law & Wine

- Liquor, Law & Logic, The only three things that these have in common is the letter L. (David Lose)
- Don’t try to make since of the regulations (because many don’t make sense) just know what you have to do to comply.
- It does not matter if you are doing things correctly if you do not keep accurate records of what you have done.

Historical Background

- The origins of this complex multitude of laws that govern alcohol go back to the repeal of Prohibition in 1933.

Historical Background

- We have covered how prohibition had profound affects on the country’s consumption of wine.
- Similarly, prohibition’s repeal had a direct affect on how wine was regulated by government agencies.

Historical Background

- The 18th Amendment to the constitution enacted nationwide prohibition on the production, sale, or consumption of alcohol in 1919 and was repealed with the 21st amendment in 1933.
- One of the stipulations of the repeal amendment is that states were allowed to govern all aspects of alcohol within their borders.

Historical Background

- Different states have different standards so this resulted in each state forming its own unique laws to govern wine and other alcoholic products.
- One exception to this is in the 1980’s the federal government gave states incentives to make the nationwide drinking age 21.

Odd Laws

- There are many confusing and arcane laws still on the books throughout the US, Such as:
  - It is a felony to ship wine to some states and in a few, the punishment is the same as assault with a deadly weapon.
  - If you’re a student under 21 in a foreign country where you are of drinking age, Federal law says you still cannot drink.
Odd Laws

- **Nebraska**, it is illegal for bar owners to sell beer unless they are simultaneously brewing a kettle of soup.
- **Colorado**, half-bottles of wine are illegal.
- **Texas**, it is illegal to take more than three sips of beer at a time while standing and The Encyclopedia Britannica is banned because it contains a formula for making beer.

Odd Laws

- **Utah**, a restaurant cannot offer a customer a wine list without them first asking for it. Also, you cannot serve a second glass of wine to someone who hasn’t finished their first.

Odd Laws

- **Pennsylvania**, It is illegal for a married man to buy alcohol without written permission from his wife.
- **Alaska**, It is illegal to serve alcohol to a moose.
- Most of these laws are seldom, if ever, enforced.

State Laws Governing Wine

- State laws governing commerce in wine generally fall into one of four categories:
  - Laws that govern the distribution of wine.
  - Laws that govern the sale of wine.
  - Laws that govern the state taxation of wine.
  - Laws that govern the shipping of wine by producers and consumers.

State Distribution Laws

- There are four entities that are involved in getting wine into the consumers’ hands.
  - **Suppliers** (wineries) that produce or import wine.
  - **Brokers**, these are companies or individuals that represent the winery and sell its product for a commission.

State Distribution Laws

- The four entities continued.
  - **Distributors**, these are companies that purchase wine from suppliers and store it in their own warehouses to be resold to retailers.
  - **Retailers**, either on-premise (restaurants and bars) or off-premise (wine shops and groceries), who sell directly to consumers.
State Distribution Laws

- States are divided into two categories, either competitive or control, based on the degree of management they have over distribution.
- In 32 of the states there is a competitive model of distribution; these are called licensure States where the private sector distributors and sells the wine (California, New York, Florida).

State Distribution Laws

- In the 18 remaining states is the control model of distribution. Here state agencies manage and control either distribution or sales and in some cases both operations. (Pennsylvania, New Hampshire, Michigan)

State Distribution Laws

- Due to the efficiencies inherent in private companies competing against each other, the competitive model usually offers consumers better prices and selection.
- State laws are constantly evolving.

State Distribution Laws

- The control model offers states a lucrative source of revenue from its stake in the profits generated by wine sales.
- Even in states where the control model is not popular it is difficult to repeal because of the revenue generated from alcohol sales.
- Washington state in the mid 90s

Three-Tier System Of Distribution

- This is where producers are not allowed to sell directly to retailers; instead they must go through a distributor who buys the wine from the winery before selling it to the retailer.

Three-Tier System Of Distribution

- This is a consequence of prohibition when alcohol producers had overly influenced retailers.
- Franchise states have laws that do not allow wineries to have more than one distributor or to change to another company.
- These laws are particularly difficult for small wineries where the sales in a state do not justify cost and effort it takes to acquire a distributor.
State Laws Governing Wine Sales

- State and local governments have great latitude in establishing how, where, and when alcohol can be sold.
- In some control states such as New Hampshire, Utah, and Pennsylvania wine can only be purchased through state stores.

In an effort to limit consumption, some states do not allow wine to be sold in grocery stores. Repealing this law is now being considered in New York.

Other laws control when wine and alcohol can be sold, banning it after a certain hour of the night or have “blue laws” that do not allow the sale of wine on Sunday.

State Laws Governing Wine Sales

- Dry laws ban the sale of wine in a certain districts.
  - A dry county is one whose government forbids the sale of alcoholic beverages. About 18,000,000 people live in the 10% of the area of the US that is dry.
  - Texas, Mississippi, Alabama, Arkansas, Kansas and Virginia all have numerous dry counties.

Dry Counties

- The number of dry counties in the US is rapidly declining.
  - Revenue from liquor licenses and alcohol tax.
  - One study shows dry counties have 2.5 times the number of drunk driving deaths as wet counties.

Dry counties Partially dry counties Wet counties

State Dry Laws are Changing

- State Dry Laws are Changing
State Laws Governing Shipping

- Many states do not allow the shipping of wine into the state unless it passes through established distribution channels.
- States prohibit these purchases to insure taxes are collected and alcohol is not sold to minors.
- Suppliers counter that they would pay taxes if they were allowed to ship and adult signature can be required for delivery.

State Laws Governing Shipping

- The Interstate Commerce Clause of the constitution prohibits states from infringing on trade between states, the repeal of Prohibition allows states to make their own liquor laws.
- The Supreme Court has ruled that protectionist laws are not allowed, but laws that control consumption or sales of all wine are O.K.

State Laws Governing Shipping

- The prohibition on direct shipping may not only cover wine sales but also not allow citizens to carry wine across the states borders.
- Consumers generally do not like the laws but they are supported by distributors that have a vested interest in keeping things they way they are.

State Laws Governing Shipping

- Some states, particularly those with a wine industry, have more liberal laws governing the direct shipping of wine.
- In 1986, California liberalized its shipping laws and gradually states have been following California’s lead.
- As of 2012, 40 states allow some form of direct shipping.

Things are changing, this is what the map looked like in 2005.
State ABC Offices

- Alcohol Beverage Control (ABC) agencies monitor all establishments where alcohol is sold or served and enforce the state’s laws.
- These agencies are in charge of issuing liquor licenses to sell alcohol products as well as monitoring to insure regulations are being followed.

State ABC Offices

- These agencies also control who is allowed to serve wine, in some states waiters must 21 before they are allowed to serve wine and in other states it is illegal for an employee of a winery to pour their own brand of wine at a tasting.

Three Strikes

- In California there is a “three strikes” law for serving wine to minors.
  - 1st Strike, License suspension and/or fine up to $20,000
  - 2nd Strike, Mandatory license suspension.
  - 3rd Strike, License revoked

Three Strikes Continued:

- This law applies to tasting rooms.
  - A revoked license could mean you cannot produce or sell wine!
  - All the strikes must come within a three year period.
  - The employee who serves or sells to a minor may personally subject to a $1000 fine, termination, arrest, or all three!

Decoys & Enforcement

- 20 year ABC agents are used as “decoys”.
- Decoys cannot use disguises to look older and cannot lie about their age or show a fake ID. But they can deny that they are an agent.
- “Shoulder Taps” are decoys that loiter outside liquor stores and ask someone to buy alcohol.

Decoys & Enforcement

- The only valid ID is a State issued drivers license or ID card.
- Recently several local wineries have been hit by Decoys.
  
  So, does she look 21?
ABC Training

- The California ABC does provide training seminars for people who sell or serve alcohol.

State Taxes on Wine

- State excise taxes range from $0.11/gallon in Louisiana to $2.50/gallon in Alaska. California is $0.20/gallon.
- These taxes are paid in addition to sales tax and Federal Excise Tax.
- Taxes on wine are considered a “Sin Tax” like those on cigarettes.
- Justification is that it helps the government pay for the affects of excess consumption.

Federal Wine Regulations

- The majority of federal laws that govern wine are usually concerned with either collecting federal excise taxes or the regulation of wine labeling.

Federal Wine Regulations

- The agency that enforces federal laws is the Alcohol and Tobacco Tax and Trade Bureau or TTB formerly know as the Bureau of Alcohol Tobacco & Firearms (BATF).
- Wineries, distributors and retailers must all keep records that ensure any bottle of wine that is produced or shipped is accounted for and its taxes are fully paid.

Federal Law Governing Wineries

- Home Winemakers:
  - It is legal to make **(but not sell)** up to 200 gallons of wine a year per head of household.
  - Single people can make up to 100 gallons.
  - In Alabama state law limits production to 5 gallons.
  - Distillation of alcohol is prohibited, home beer making was prohibited until 1979.

Federal Law Governing Wineries

- Commercial Wineries must follow many federal regulations.
- They are all spelled out at the TTB Website under: CFR (Code of Federal Regulations) 27, Parts 1 to 199.
- You can download the BAM (Beverage Alcohol Manuel) that spells out the rules on their website, and the TTB also offers compliance seminars.
Federal Excise Tax

- Large wineries pay 25 times a year (2X/month, 3X in September) smaller wineries pay less often.
- **When is the tax due?** 14 days after the close of the tax period unless filed yearly. If the 14th day falls on a Saturday, Sunday, or legal holiday, the tax must be filed on the day immediately preceding.

Federal Excise Tax

- **Credit for Small Domestic Producers**
  - In 1991, the excise tax on still wine was increased by $.90 per gallon.
  - At the same time, the law provided that small domestic producers of wine may qualify for a credit of up to $.90 per gallon.

Federal Excise Tax

- **Large Producer** - Produces over 250,000 gallons of wine per year.
- **Small Producer** - Produces less than 150,000 gallons of wine per year.
- You pay the lower tax on the first 100,000 gallons of wine you produce each year. Then it is prorated 1% less credit for every 1,000 gallons of wine produced over 150,000 gallons.

Three Types of Winery Ownership

- “Stand Alone” Bonded winery, ownership or lease of a physical property where wine is made; “bricks & mortar” winery.
- **Alternating Proprietor** shares or leases space in a winery alternating management by date or by work order #. Even if someone else is doing the work, you are responsible for compliance.
- **Custom Crush Client** (wholesaler), you buy finished wine with your name on it.

Winery Bonds

- Wine must be made and stored in a bonded facility (warehouse or winery).
- A **bond** is an insurance policy that covers the tax liability of the wine that is stored on premises.
- The locations of the bonded storage areas at a winery have to be filed with the TTB.

Winery Bonds

- The tax is paid on wine when it is removed from bond.
- The tasting room of a winery can only store wine that has had its tax paid, often called a “Tax Paid Room” or TPR.
- Wine can be shipped between bonded facilities without being taxed.
- Wine can also be sold in bulk in bond to another winery without being taxed.
Winery Bonds

- Wine can only be shipped “in bond” to another bonded premises.
- There are three types of bonded facilities:
  - Production
  - Storage
  - Processing
- Bonded premises are given a bond number to use when recording wine movements.

Types of Bonds

- Bonded Wine Cellars do not produce (ferment or blend) or change the tax class of the wine.
- A winery must ferment at least 5 gallons a year to keep the bond active.

Types of Bonds

- Bonded Wine Warehouses store wine on bonded wine premises.

Winery Bonds

- When shipping wine “in bond” careful records must be kept to keep from causing a tax liability.
- The information is recorded on a Bill of Lading or a Transfer in Bond Record.
- For a wine to be removed from bond it must have an approved label.

The Transfer in Bond Record (bill of lading) must contain the following information:

- The date of shipment
- The name, address, and registry number (winery bond #) of proprietor and consignee
- The class & type and alcohol content or tax class
- The number of cases or containers larger than 4 liters

The Transfer in Bond Record (bill of lading) continued:

- The serial numbers of cases (if any)
- The varietal, vintage, appellation or any other information which may be stated on the label
- Information as to any cellar treatment for which a label designation may be required, such sulfur dioxide
- For unlabeled bottled wine, the registry number of the bottler
TTB Forms

- A bonded winery must report monthly on production activities and shipments.
- Wine movements are reported on a 5120.17 form (formerly called 702 form)
- Think of it as balancing your checkbook for wine (only it’s less fun)
- It is available online in Excel format

Recording Cellar Operations

- Everything that you do to wine must be recorded in a cellar work order. They cover everything that happens to a wine from grapes to bottling.
- California law states that grapes that must be delivered with a field tag that specifies the variety and appellation of the fruit.
- This information is recorded along with the weight on the weigh tag.

Grape Field Tag

- Provided by the grower.

Grape Weigh Tag, A wine birth certificate
Cellar work order

Recording Cellar Operations

- Weigh tags are the basis for all of the claims that you make about a wines’ appellation, vintage and variety.
- You must be able to prove any statements made on a label by tracing the wines history through work orders to the origin of the grapes.

- Computer programs that keep track of cellar operations are indispensable in commercial wineries.
- Complete physical inventories must be performed at least once a year and signed.
- All tanks must be labeled with ID (tank number) and capacity.

Federal Bioterrorism Laws

- Since 2006 all food products must have Traceability to and from origin.
- This means if a substance, such as tartaric acid or corks, used for the production of wine (or any food product) is found to be contaminated you have to be able to show exactly which bottles of wine it went into.

- All records must be kept for at least 3 years after the last bottle is sold.
- If you cannot prove what you are bottling with your records the wine becomes generic.
- A 2010 Estate Bottled Sonoma Valley Merlot can become Non-Vintage American Red Table Wine if you can’t prove its composition in your paperwork.

- All production materials that come in contact with wine must have a lot code that can be traced to the supplier and forward to individual bottles of wine.
- All suppliers must provide a lot code and the name and license number for every truck that delivers materials.
- Bottles must have a serial number or time stamp on them for tracking.
Federal Bio-Terrorism Laws

- Wineries were ahead of most food companies because we already had to keep track of movements for label claims.
- Government estimates were the it would cost wineries $500/Year to implement!

Federal Bio-Terrorism Laws

- Wineries must have a contact person on file that can be reached in an emergency to provide information.
- You must be able to provide complete traceability both backwards from your product and forward from your ingredients.

Federal Bio-Terrorism Laws

Laser Coding machine for serial numbers

Label Law

- All labels for wine must have TTB approval and contain certain information.
- Labels are approved by filling out on-line or in paper form 1512-0092 (COLA-Certificate of Label Approval)
- A Copy of the proposed label must accompany the application

Vintage Date

- **Vintage Date** regulations changed in 2006
  - If an AVA (Napa Valley) is listed as the appellation then 95 percent of the grapes used to make the wine must be grown the year listed as the vintage.
  - If the appellation listed is a political district, (Sonoma County), then at least 85% of the grapes must be harvested the in the year listed as the vintage.

Vintage Date

- 85% is international standard
- During public review only two consumers made comments.
- Most consumers thought that vintage date was important, but only 1/3 know what it meant!
- If a vintage date is used, the appellation must be stated as well.
Audits

- Two types of audits, product integrity and tax returns.
- You have to be ready at any time to prove your label statements and excise taxes are accurate.
- Not a problem if you keep neat and accurate records, laser printers a big help.

Audits

- Big wineries can expect an audit every few years, smaller wineries are audited less frequently.
- One TTB inspector told me “little mistakes” do not concern him but if your committing consumer fraud then he wants to “nail you”.

Basic Business Law

- In addition to the laws that govern alcohol wineries must comply with all local, state and federal laws that govern businesses such as:
  - OSHA, wastewater, ADA, environmental laws, labor laws, zoning, use permits, etc.

Remember

- With all regulations it does not matter if you are doing things correctly if you are not documenting that you are doing things correctly.

Alcohol & Health

- The Big Question: Is Wine a food or a drug?
  A: Ideally a food that should be consumed in moderation

Physiological Effects

- We've talked about the sensory effects of alcohol (solvent for volatile compounds, viscosity, "hot" sensation) now we will talk about the physiological effects on the body.
**Ingestion**
- Alcohol is absorbed rapidly from the gastrointestinal tract into the blood stream (without digestion).
- Alcohol is broken down in the liver to acetaldehyde then to CO$_2$ + H$_2$O via the enzyme alcohol dehydrogenase.
- A small amount (2 to 12%) is secreted via sweat, urine, and breath.

**Physiological Effects**
- **Inhibits anti-diuretic hormone** so you lose water through urine. Much of the pain of hangover is from dehydration. Good idea to drink a glass of water/glass of wine.
- **Mild depressant**, but it reduces inhibitions so it feels like a stimulant.
- **Alters brain function** (mechanism not known) and slows reaction time. Extreme amounts can cause unconsciousness & death.

**Blood Alcohol**
- The amount of alcohol in the body is measured by the Blood Alcohol Concentration (BAC) in % (g/100ml)

**Blood Alcohol Charts**
- Provide a basic estimate of BAC based on consumption

**Factors that affect BAC**
- Rate of absorption and concentration in blood affected by:
  - **Body weight:**
    - This is obvious, the larger you are the more blood available for alcohol dilution.
  - **Athletic people** also have higher dilution because they have greater blood volume than sedentary people.
It is mainly (about 2/3) absorbed in the duodenum (the first part of the small intestine) the rest is absorbed from the stomach.

Factors that affect BAC
- **Food Consumption**
  - If there is food in your stomach the valve called the **pyloric sphincter** between your stomach and your duodenum stays closed; and alcohol is absorbed more slowly by the stomach.
  - On a full stomach the rate of, alcohol absorption is 30% to 70% of empty stomach absorption.

- **Type of alcohol consumed**, Hard alcohol (higher proof) gets absorbed faster; also CO₂ relaxes the valve between the stomach and the small intestine so alcohol from carbonated beverages gets absorbed more rapidly.

- **Rate Of Elimination**, The average liver can process 6 to 10 grams ethanol/hour, on average it takes about 3.3 hours to go from 0.1% to 0.05%

Measurement
- The concentration in the blood is 2,100 times greater than the concentration in a deep lung breath. Concentration is variable and unreliable in the urine.
- Breathalyzers can also be inaccurate, a false high can come right after drinking a glass of wine.

Breathalyzers
- Personal Breathalyzers cost from $75 to $200. A lot cheaper than a $6,000 DUI

Red wine Headaches
- Not from sulfites (a common misconception)
- Most likely caused by an allergic reaction to the histamines and tyramines found in wine as well as the breakdown of some phenolic compounds.
Benefits of Moderate Consumption

- Improved cardiovascular health, most favored explanation is alcohol increases high-density lipoprotein (HDL) levels in blood.
- HDL (the "good" cholesterol) has a protective affect against vascular decease & lowers incidence of arteriosclerosis, may be by helping transport cholesterol to liver for metabolism.

Wine and Cancer

- Studies are ongoing but evidence suggests that moderate consumption of wine may increase some cancers and help prevent others.
  - Increased risk of breast, colon, esophageal and stomach cancer.
  - Decreased risk of lung, ovarian and prostate cancer.

Benefits of Moderate Consumption

- This is often referred to as the French Paradox (as seen on 60 minutes in 1991) the French eat high fat food, smoke like chimneys and rarely exercise yet the have less heart disease than Americans.
- It may be from their moderate consumption of alcohol; life style may also be of importance.

Benefits of Moderate Consumption

- What is moderate intake? Depends on your general heath, weight, family history & sex, usually about 1 to 3-six ounce glasses/day.
- Above this level beneficial effects are lost and adverse affects begin.

Rules for Healthful Consumption

- Always drink with food (wine tastes better too).
- Always drink with water (fights dehydration).
- Know your limit and stick to it!
Rules for Healthful Consumption

- Do not consume with other drugs, legal or otherwise.
- Dangerous synergistic effects of nausea suppression with marijuana.
- Smoking tobacco is a co-factor for almost every cancer, including those associated with excessive alcohol consumption.

Other Risk Factors

- Genetic predetermination for addictive personalities. Know your family history of heart disease and alcoholism.
- Gender: The benefits of moderate consumption is much more clear cut for men than women.
  - Men are generally larger and have more blood volume than women.

Special concerns for women

- Some studies showed alcohol consumption increased breast cancer even at moderate levels; others were inconclusive.
- One study showed a slight increase in risk with as little as one drink per day.
- Mechanism is suspected to be that ethanol increases the production of estrogen which in turn promotes some types of breast cancer.

Special concerns for women

- Women can use their family history of heart disease vs. breast cancer as well as whether they are pre or post menopausal to make a decision on what is healthy consumption.
- One 2010 study shows that women who were teetotalers gained more weight as they aged than women who drank in moderation and had greater risk of diabetes.

Limits for pregnant women

- Fetal Alcohol Syndrome (FAS) is a birth defect linked to alcohol consumption during pregnancy.
- One paper that was just published says, “as little as one drink a day during the first trimester is risky”. This is significant because you could expose the fetus before you even know that you are pregnant.

Limits for pregnant women

- Another study shows FAS is no higher in countries where most pregnant women drink moderately through out pregnancy.
- Since the 1970s drinking during pregnancy has decreased dramatically but the rate of FAS has remained unchanged.
Limits for pregnant women

- Many OB-GYN’s say a glass of wine a day with food will do no harm, but many US doctors and mothers to be say, “why take any risk at all?” and pregnant women should just abstain.

As far as life expectancy goes, the results are straightforward:

- **Alcoholics** have the shortest life expectancy
- **Teetotalers** live longer than alcoholics
- **Moderate drinkers** live the longest of any group!

Finals

- This Week - Final presentations in lab
- Next Week - Final exam
  - Bring Scantron, #2 Pencil, & calculator
  - Covers: Two thirds of the questions will be on the last five lectures, one third will be from the first 10 lectures.
  - About 50-60 questions