



## GENERAL INFO

**RESIDUAL SUGAR** SUGAR THAT WAS LEFT AFTER FERMENTATION WHICH WAS NOT TURNED INTO ALCOHOL

**DRY WINES =** LESS THAN 1% RESIDUAL SUGAR

**SWEET WINES =** 3-28% REDIDUAL SUGAR

**BRIX =** A MEASUREMENT OF SUGAR VERSUS JUICE IN A GRAPE OR FRUIT.  
DISSOLVED SUGAR-TO-WATER MASS RATIO OF LIQUID  
MEASURES THE SPECIFIC GRAVITY OF A LIQUID  
25° BRIX = 25 GRAMS OF SUCROSE TO 75 GRAMS WATER  
IT IS MEASURED AT A 20° C OR 68° F TEMPERATURE AS A REFERENCE

*REFRACTOR METER* = USED TO MEASURE BRIX IN THE VINEYARD

**MUST =** THE FRESH PRESSED FRUIT JUICE WHICH IS SWEET

**ALCOHOL LEVELS =**

IN THE US THE WINES ARE USUALLY AT 14% BECAUSE THEY ARE FORTIFIED.

IN GENERAL DESSERT WINES ARE OF LOWER ALCOHOL LEVELS BECAUSE THE SUGARS BECOME ALCOHOL

US MAKES DRY WINES AT 15% ALC

# TYPES OF DESSERT WINES:

**LATE HARVEST** = GRAPES PICKED LATE IN THE SEASON. GRAPES HAVE OVER-RIPENED WHICH IS CALLED RAISING BRIX LEVELS INCREASE IN SUGAR AND DECREASE IN JUICE

**BOTRYTIS** = *NOBLE ROT* A FUNGUS THAT OCCURS ON GRAPES AND INCREASES SUGAR LEVELS. IT FEEDS OFF THE WATER AND SUCKS IT OUT LEAVING NECTAR. DURING FERMENTATION THE YEAST CANNOT EAT ALL THE SUGAR AND IT DIES OUT ONCE IT REACHES A CERTAIN ALCOHOL LEVEL; LEAVING SWEET WINE.

1) *GREY ROT* = OCCURS IN WET AND HUMID CONDITIONS THIS CAN RESULT IN LOSS OF BUNCHES AND DESTROYS FRUIT

2) *NOBLE ROT* = OCCURS WHEN ARID CONDITIONS ARE FOLLOWED BY WET CONDITIONS. AS IN SAUTERNES OR TOKAJI

**PORTS** = FORTIFIED WINES, SWEET WINES OF A LOWER ALCOHOL LEVEL WHICH GET BRANDY ADDED TO THEM TO FORTIFY THEM AND INCREASE ALCOHOL LEVELS

**VIN DOUX NATURAL** = LATE HARVEST WINES THAT ARE FORTIFIED SUCH AS MUSCAT BEAUNE DE VENISE AND BANYULS

**ICE WINES** = GRAPES ARE PICKED WHEN THE FROST HAS SET ON THE VINES, GERMANY AND CANADA ARE THE MOST FAMOUS.

**STRAW WINES** = GRAPES DRIED TO CONCENTRATE JUICE SIMILAR TO ICE WINES BUT IN HOT CLIMATES. GRAPES ARE DRIED UNDER COVERS, HUNG ON RAFTERS, ON THE ROOFS OR LAID OUT ON MATS IN THE HOT DESERT SUN CREATE DENSE SWEET WINES LIKE SAUTERNES STYLE

AMARONE = DRY RED WINES RECIOTO DELLA VALPOLICELLA = SWEET WINES  
VIN SANTOS IN TUSCANY; JUMILLA REGION OF SPAIN

# chaptalization

ROMANS WERE THE FIRST, ADDED HONEY TO WINE TO ADD LENGTH  
TODAY IT IS USED TO CREATE ALCOHOL FOR FLABBY AND UNDER RIPENED GRAPES BY ADDING  
SUGAR TO UNFERMENTED GRAPE MUST

INVENTED BY FRENCH CHEMIST JEAN-ANTOINE-CLAUDE CHAPTAL  
NOT INTENDED TO MAKE WINE SWEETER,  
BUT TO ADD SUGAR SO THAT ALCOHOL CAN BE CREATED

PROHIBITED IN CALIFORNIA, AUSTRALIA, AUSTRIA, ITALY AND SOUTH AFRICA

ALLOWED IN REGIONS WHICH HAVE A LOW SUGAR CONTENT SUCH AS FRANCE,  
GERMANY AND PARTS OF THE US  
IN GERMANY IT IS PROHIBITED FOR THE PRODUCTION OF PRADIKATSWEINS = QMP  
GERMAN WINES TELL YOU ON THE LABEL  
TOP TIERS OF GERMAN WINE ARE BANNED

IT IS USED IN FRANCE TO STRENGTHEN AND PRESERVE WINES  
GERMANS STARTED TO DO IT IN 1840'S AFTER HARSH WINTERS WHICH  
DID NOT ALLOW GRAPE TO RIPEN  
IT SAVED WINE PRODUCTION IN THE MOSEL WHICH COULD HAVE SEIZED  
AFTER THOSE BAD VINTAGES

## **CONTROVERSY IN 20TH CENTURY:**

PEOPLE OF THE LANGUEDOC PROTESTED AND RIOTED WHEN OTHER LESSER REGIONS THAT  
COULD NOT PRODUCE WINE WERE PRODUCING HIGH QUANTITIES OF CHEAP WINE  
DRIVING THE PRICE OF WINE DOWN.  
ARMY WAS SENT IN TO STOP PROTESTING  
GOVERNMENT RESPONDED BY RAISING SUGAR TAX AND  
PASSED LAWS TO LIMIT AMOUNT OF SUGAR WHICH COULD BE ADDED

# chaptalization process

THE USE OF CANE SUGAR, BEET SUGAR OR CORN SYRUP  
SOME USE BROWN SUGAR OR GRAPE CONCENTRATION  
WHEN ADDED THE SUCROSE BREAKS DOWN TO FRUCTOSE AND GLUCOSE  
WHICH THE YEAST CAN BEGIN TO TURN IN TO ALCOHOL

## WARM REGIONS

OPPOSITE OCCURS

REHYDRATION = WATER IS ADDED TO LOWER HIGH SUGAR LEVELS

ACIDIFICATION = ADD TARTRIC ACID TO THE MUST WHICH HAVE HIGH LEVELS OF  
SUGAR AND LOW ACIDS

## CHAMPAGNE

ADD BRANDY AFTER FERMENTATION & PRIOR TO CORKING = *DOSAGE*

USED TO INCREASE PRODUCTION BY ADDING SUGAR TO MUST

REVERSE OSMOSIS = REMOVE WATER FROM UNFERMENTED GRAPES TO  
INCREASE SUGAR AND LOWERING THE VOLUME OF WINE PRODUCED

*EACH GROWING REGION HAS A CERTAIN LEVEL OF CHAPTALIZATION*



# vin doux natural

## NATURALLY SWEET?! NOT REALLY

**MUTAGE:** ADDING DISTILLED GRAPE SPIRITS TO THE MUST EITHER BEFORE OR MID WAY THROUGH FERMENTATION  
VIN DOUX GET 10% ALC ADDED OF 95% ABV  
PORTS GET 15% ALC ADDED OF 80% ABV  
ALCOHOL LEVELS END UP BEING HIGHER IN PORTS

## MUSCAT

MUSCAT IS KNOWN ALL OVER THE WORLD UNDER DIFFERENT NAMES:  
MUSCAT BLANC, MUSCAT OF ALEXANDRIA - MOSCATEL, MUSCAT OTTONEL, BLACK MUSCAT  
MUSCAT DE RIVESALTES, MUSCAT DE BEAUME-DES-VENISE ARE FORTIFIED LATE HARVEST  
KNOWN AS VIN DOUX NATURALS  
BEAUME-DES-VENIS = RHONE  
RIVESALTES = ROUSSILLON PYRENNES

## BANYULS

AN AOC OF FRANCE KNOWN FOR MAKING DESSERT WINES  
GRAPES : GRENACH NOIR, GRENACH GRIS, GRENCACHE BLANC, CARIGNAN, MUSCAT  
MADE IN THE PORT STYLE; GRAPE SPIRIT IS ADDED MID WAY THROUGH FERMENTATION  
WINE IS THEN LEFT IN OAK CASKS OR IN GLASS BOTTLE IN THE SUN TO "MADERISE"  
WINES ARE SIMILAR TO PORT WITH LOWER ALCOHOL LEVELS 16%

# ice wines

## EISWINE

**HISTORY** = STARTED IN ROMAN TIMES

1794 FIRST ICE WONES IN FRANCONIA AND GERMANY

1830 THE 1ST DOCUMENTATION OF THE 1829 VINTAGE WHICH WAS A HARSH VINTAGE AND GRAPES FROZE ON THE VINE

WOULD USE THOSE GRAPES FOR ANIMAL FODDER UNTIL THE SWEET JUICE WAS DISCOVERED

19TH CENTURY 6 VINTAGES MADE ICE WINE

BECAME MORE COMMON BY THE INVENTION OF THE BLADDER PRESS

## **PRODUCTION**

WINES ARE PICKED LATE IN THE SEASON WHEN FROST HAS BUILT ON THE VINES. USUALLY IN DECEMBER OR JANUARY.

ONLY CAN OCCUR WHEN THE WEATHER ALLOWS FOR THE FROST TO COVER VINES WITHOUT BURNING GRAPES

GRAPES ARE PICKED AT NIGHT WHEN IT IS THE COLDEST

GRAPES ARE IMMEDIATELY SHIPPED TO TEMPERTURE CONTROLLED CELLARS TO BE CRUSHED

WATER MOLECULES ARE FROZEN AND ALLTHAT IS LEFT WHEN THE GRAPES ARE CRUSHED IS PURE GRAPE NECTAR

- \* IT TAKES A LOT OF GRAPES TO GET ENOUGH JUICE

- \*THE LABOR INVOLVED IS TEDIOUS

- \*PRODUCTION IS DIFFICULT AND CAN BE SUBJECT TO CHANCE

FOR THESE REASONS THE WINE ARE VERY EXPENSIVE

WINES ARE VERY SWEET, LIKE SYRUP; DARK GOLD COLOR

MAIN GRAPES FOR ICE WINES ARE **riesling and vidal**. RIESLINGOS MORE COMMON IN GERMANY AND VIDAL IN CANADA

SUGARS ARE VERY HIGH SO THEY MAKE GOOD DESSERT PAIRINGS, THEY ARE ALSO A GREAT DESSERT ON THEIR OWN AND AMAZING WITH CHEESE (BLUE CHEESE)

INNISKILIAN IS A PIONEER IN CANADA USE OF VIDAL

HAS TO HAVE A BRIX LEVEL OF 35°

IN GERMANY THE BRIX NEES TO BE AT 110°

FLAVORS OF PEACH, PEAR, HONEY, FIGS, MANGO, PINEAPPLE & LYCHEE LONG FINISH

LOW ALCOHOL LEVEL AS LOW AS 6%

**CROEXTRACTION** = GRAPES FROZEN AND THEN PRESSED LESSER QUALITY

# production

## MEASURING THE MUST

*SPECIFIC GRAVITY* finds the specific gravity of a liquid; after is 1% grapes are 1.075% that extra 7.5% is sugar

*OESCHLES* german; oeschles value shows specific gravity  $75^{\circ} = 1.075$  an auslese =  $83^{\circ}$

*BRIX/BALLING* percentage of grape juice accounting for by dissolved solids  
 $75^{\circ}$  oeschle =  $18^{\circ}$  brix

*BAUMÉ* scale to derive the alcoholic strength of juice if fermented to total dryness

16.5 g of sugar produces 1% alc

$75^{\circ}$  oeschle =  $10^{\circ}$  baume = 1% alc

## WAYS OF INCREASING SWEETNESS

1) LET THE GRAPES GROW LATE INTO THE HARVEST AND NATURALLY BECOME RIPER

2) ADD SUGAR

*CHAPITALIZATION* = ADD CANE SUGAR OR HONEY BEFORE FERMENTATION

*SÜSSRESERVE* = "RESERVE OF SWEETNESS" ADDING UNFERMENTED MUST AFTER FERMENTATION

3) FORTIFICATION = ADDING BRANDY OR GRAPE SPIRITS SO THAT FERMENTATION IS STOPPED AND LEAVES A SWEET WINE

**VIN DOUX NATURAL**

**PORT, SHERRY, MADEIRA, MARSALA AND VERMOUTH**

**MISTELLE** = *APPERTIFS* = ADD BRANDY TO UNFERMENTED OR PARTLY FERMENTED JUICE

4) REMOVE WATER TO CONCENTRATE WINE

WARM CLIMATES = AIR DRYING WINES KNOWN AS RAISIN WINES

FROSTY CLIMATES = ICE WINE, FREEZING WATER

DAMP CLIMATES = BOTRYTIS CINEREA, GREY MOLD A FUNGAL INFECTION WHICH FEEDS OFF THE WATER IN THE GRAPE

5) *GREEN HARVESTING* = PRUNING AND EXPOSING GRAPES TO THE SUN . LESS GRAPES ON BUNCH MORE SUN EXPOSURE. USED IN WINES SUCH ASULÈSE

# botrytis

known as "grapes of ashes"



when occurs the fungus feeds off water and leaves only solids, sugars, fruit acids and minerals = concentrated grape juice  
these wines have aromas of honeysuckle with a bitter finish  
fermentation becomes very complex because of the intensity of the sugars the yeasts can die and the alcohol production sieze  
many times the yeasts are nurtured through the night

## *Botrytis Bunch Rot*

affects the bunched of grapes and results in high losses  
this occurs when the fungus begins to grow at the start of frost, if the grapes are wounded they can be infected by bunch rot. a cure is the use of fungicides  
when botrytis occurs in horticulture it results in inedible fruits





# sauternes

## GRAVES REGION OF BORDEAUX, FRANCE

**HISTORY** = WINE PRODUCTION IN REGION DATES BACK TO ROMANS  
SWEET WINE WAS NOT PRODUCED UNTIL 17TH CENTURY

WHILE ENGLISH WERE BUY REDS (CLARETS), AND GERMANS FOCUSED ON BEER  
PRODUCTION THE DUTCH INVESTED IN WHITES OF THE REGION  
INTRODUCED GERMAN WINEMAKING TECHNIQUES

THE USE OF SULFUR TO STOP FERMENTATION = BURNING BRIMSTONE CANDLES  
BOTRYTIS WAS NOT USED UNTIL 18TH CENTURY

THOMAS JEFFERSON BECAME HUGE FAN OF THESE WINES  
SAUTERNES IS CLASSIFIED AS PRIMER CRU SUPERIOR



## CLIMATE

LOCATED IN A MARITIME CLIMATE IS  
SUSCEPTIBLE TO FROST AND HAIL

IT IS LOCATED ON THE GARONNE RIVER  
AND NEXT TO CIRON, WHICH HAS NATURAL  
SPRINGS

THE MIX OF THE WATER OF THE COOL  
GARONNE AND THE WARM SPRINGS  
CREATES A MIST OVER THE VINEYARDS

WITH THE SUN THIS CAUSES HUMIDITY  
AND THIS ENABLES BOTRYTIS TO GROW.

**PRODUCTION** = THE USE OF BOTRYTIS WHICH RETAINS TARTRIC ACID  
AND DEVELOPS SUGARS

HAND PICKED BOTRYTIS GRAPES

VERY LITTLE JUICE CAN BE EXTRACTED FROM RAISINED GRAPES

1 VINE CAN NOT PRODUCE 1 GLASS OF WINE

SOME PRODUCERS USE CO-EXTRACTION = FREEZING GRAPES TP REMOVE  
WATER AND MAKES IT EASIER TO GET CONCENTRATION FROM NOT SO  
DEVELOPED GRAPES

THIS IS USED IN POOR VINTAGES

FERMENTED IN NEW OAK BARRELS

FERMENTED TO ABOUT 14% ALC SOME WILL GO MORE WITH SPECIAL YEASTS

THEN ITIS AGED IN OAK FOR 18-36 MONTHS

**GRAPES** = SEMILLON 75-90%, SAUVIGNON BLANC & MUSCADELLE

SEMILLON HAS THIN SKIN AND GETS BOTRYTIS EASILY

SAUVIGNON BLANC DEVELOPES THE ACIDITY

MUSCADELLE ADDS AROMA

**FLAVORS OF PEACHES, HONEY AND APRICOTS ARE CLASSIC  
THEY HAVE A LONG FINSH AND ACIDITY**

**CAN AGE FOR 100 YEARS**

**chateau d'yquem is the most famous 1st growth**

# tokaji

worlds oldest botrytis wine made in hungary  
worlds first appellation control, 120 years prior to bordeaux

**SOIL** = CLAY; LOES & VOLCANIC SUB SOIL

**CLIMATE** = SUNNY, SOUTHFACING VINEYARDS, COLD WINTERS

**GRAPES** = FURMINT 60%, HARSLEVEÜ, YELLOW MUSCAT, ZÉTA

**CELLARS** = CARVED OUT OF ROCK FOR CONSTANT TEMPERATURE 10-20°; MOLD AT 85-90% HUMIDITY

**HISTORY** = STARTED BACK IN CELTIC TIMES B.C.

SO MUCH A PART OF HUNGARIAN CULTURE; IT IS MENTIONED IN THEIR NATIONAL ANTHEM

FURMINT IS USED BECAUSE IT HAS A SECOND SKIN WHICH SELVES THE FIRST SKIN FROM ROT  
GRAPES ARE HARVESTED IN DECEMBER

*ASZU* = SWEET TOKAJI; TOPAZ COLOR, THE MOST PRIZED TOKAJI

## PRODUCTION

PICKED AND MADE INTO A PASTE KNOWN AS *DOUGH*

MUST IS POURED ON DOUGH FOR 24-48 HOURS CONSTANTLY STIRRING  
IT IS THEN PUT IN CASKS AND FERMENTED

*PUTTONYOS* = THE MEASUREMENT OF HOW MUCH DOUGH WAS PUT INTO  
EACH CASK

TODAY IT IS THE MEASUREMENT OF SUGAR AND  
SUGAR EXTRACT IN THE WINE SOMEWHERE BETWEEN  
3 -6 PUTTONYONS

*ASZU ESZENCIA* = HAS A PUTTONYONS LEVEL OF 6 OR MORE \$\$\$\$

*ESZENCIA* = NECTAR, IS THE RUN OFF JUICE OF THE GRAPES AND IS SUPER  
SWEET.

IT IS AT TIMES ADDED TO *ASZU*

IT IS FERMENTED BUT ONLY PRODUCES 5-6% ALC,  
TAKES UP TO 4 YEARS TO FERMENT

CAN LAST UP TO 200 YEARS

# straw wines

wines that are laid out to dry  
these wines can be dry or sweet

## VIN SANTO

WINES FROM TUSCANY ITALY

MADE WITH TREBBIANO, MALVASIA OR SANGIOVESE (ROSE STYLES)

WINES ARE LAID TO DRY IN THE CELLAR UNDER STAIRCASES OR ON RAFTERS

ROOMS ARE KEPT WARM AND WELL VENTILLATED SO MOISTURE BEGINS TO EVAPORATE  
LEAVING CONCENTRATED BERRIES

GRAPES ARE CRUSHED AND FERMENTATION STARTS; VIN SANTO FROM PREVIOUS  
VINTAGES IS ADDED TO START THE FERMENTATION

WIINE IS THEN TRANSFERED INTO SMALL OAK BARREL AND AGED 3-10 YEARS  
TRADITIONALLY THEY WERE MADE IN CHESTNUT BARRELS USED  
*ULLAGE*= SPACE OF AIR TO CAUSE OXIDATION

SOME PRODUCERS STILL USE CHESTNUT, JUNIPER OR CHERRY WOOD.  
OTHERS WILL BLEND BARRELS TO ADD DISTINCTIVE FLAVORS

STYLES WILL RANGE FROM BONE DRY TO VERY SWEET BOTRYTIS STYLE  
SOME WILL BE FORTIFIED; VIN SANTO LIQUOROSO

## JUMILLA

WAS NOT STRUCK WITH PHYLOXERA, BECAME VERY POPULAR, UNTIL 1989 IT STRUCK  
THE USE OF MONSTRELLE(MOURVEDRE), PETIT VERDOT, GRANACHA OR SYRAH  
VERY ARID AND CONTINETAL CLIMATE  
GRAPES ARE LAID OUT ON DIRT OR CANVAS MATS AND ROASTED IN THE SUN  
DEVELOPE DEEP RICH DARK COLORS  
RAISIN AND PORT-LIKE

# sherry

vinho de jerez = white grapes from jerez spain

**KNOWN AS SACK=** SACA REMOVE FROM THE SOLERA  
MOST COM EFROM THE SHERRY TRIANGLE IN THE PROVINCE OF CADIZ  
JEREZ DE LA FRONTERA  
SANLÚCAR DE BARRAMEDA  
EL PUERTO DE SANTA MARIA

SHERRY = FORTIFICATION TAKES PLACE AFTER FERMENTATION

PORT = FORTIFICATION TAKES PLACE MID WAY THROUGH FORTIFICATION

## HISTORY

UNDER MOORISH RULE NAMED THE AREA SHERISH = SHERRY & JEREZ

MOORS PUT BAN ON ALCOHOL PRODUCTION UNTIL LOCAL GROWERS MADE THE CASE THAT THEY NEEDED TO GROW GRAPES TP GROW RAISINS FOR THE ARMY

16TH CENTURY JEREZ HAD A REPUTATION AS THE BEST WINES OF THAT ERA

CADIZ WAS AN IMPROTANT SEAPORT

ENGLISH TOOK LIKING TO THE WINES OF THAT REGION NAD THERE BECAME A DEMAND

END OF THE 19TH CENTURY PHYLLOXERA DESTROYED THE VINEYARDS, ONLY THE LARGE HOUSES WERE ABLE TO REPLANT AND SMALL PRODUCERS STOPPED MAKING WINES

## GRAPES

*PALOMINO* = DRY SHERRIES, 90% OF SHERRY IS MADE WITH PALOMINO

*PEDRO XIMENZ* = SWEET WINES, DREID IN THE SUN TO CONCENTRATE FLAVORS

*MOSCA TEL* = LESS COMMON, SIMILIAR TO PEDRO XIMENEZ



# PRODUCTION

*MUSTO DE YEMA* = 1ST PRESSING ONLY THE ORIGINAL MUST FERMENTED IN STEEL VATS TO PRODUCE A DRY WINE

WINE IS SAMPLED AND CLASSIFIED ACCORDING TO POTENTIAL

/ = FINEST FLAVOR & AROMA = FORTIFIED TO 15% ALC TO ALLOW THE GROWTH OF THE FLOR

O = MORE FULL BODIED, FORTIFIED TO 17.5% ALC TO PREVENT FLOR. AGED TO OXIDIZE AS AN OLOROSSO

// = WINES WHICH NEED TO DEVELOPE MORE; FORTIFIDE TO 15% ALC TO MAKE AN AMONTILLADO OR OLOROSSO

/// = pOOR WINE WILL BE DISTILLED

## Flor – the key to Sherry wines

- Film of natural (local) yeasts – different strains of *saccharomyces ellipsoideous*.
- Protects the wine from oxidation.
- Continuous interaction with the wine:
  - consumption of remaining sugars, dissolved oxygen, alcohol, glycerine...
  - production of acetaldehydes, carbon dioxide...



# SOLERA METHOD

WINE IS PUT IN CASKS 5/6TH FULL TO ALLOW THE FLOR AT TOP

*FLOR* = SACCHAROMYCES ARE YEASTS IN THE AIR THAT FORM FROM ALCHOL THAT BUILDS AT TOP OF THE BARREL IT COVERS THE WINE AND SHIELDS IT FROM OXIDATION

IF FLOR DIES WINE BECOMES OXIDIZED AND BECOMES AN AMONTILLADO

BARRELS ARE STACKED ANY WHERE FROM 3 TO 9 ROWS HIGH

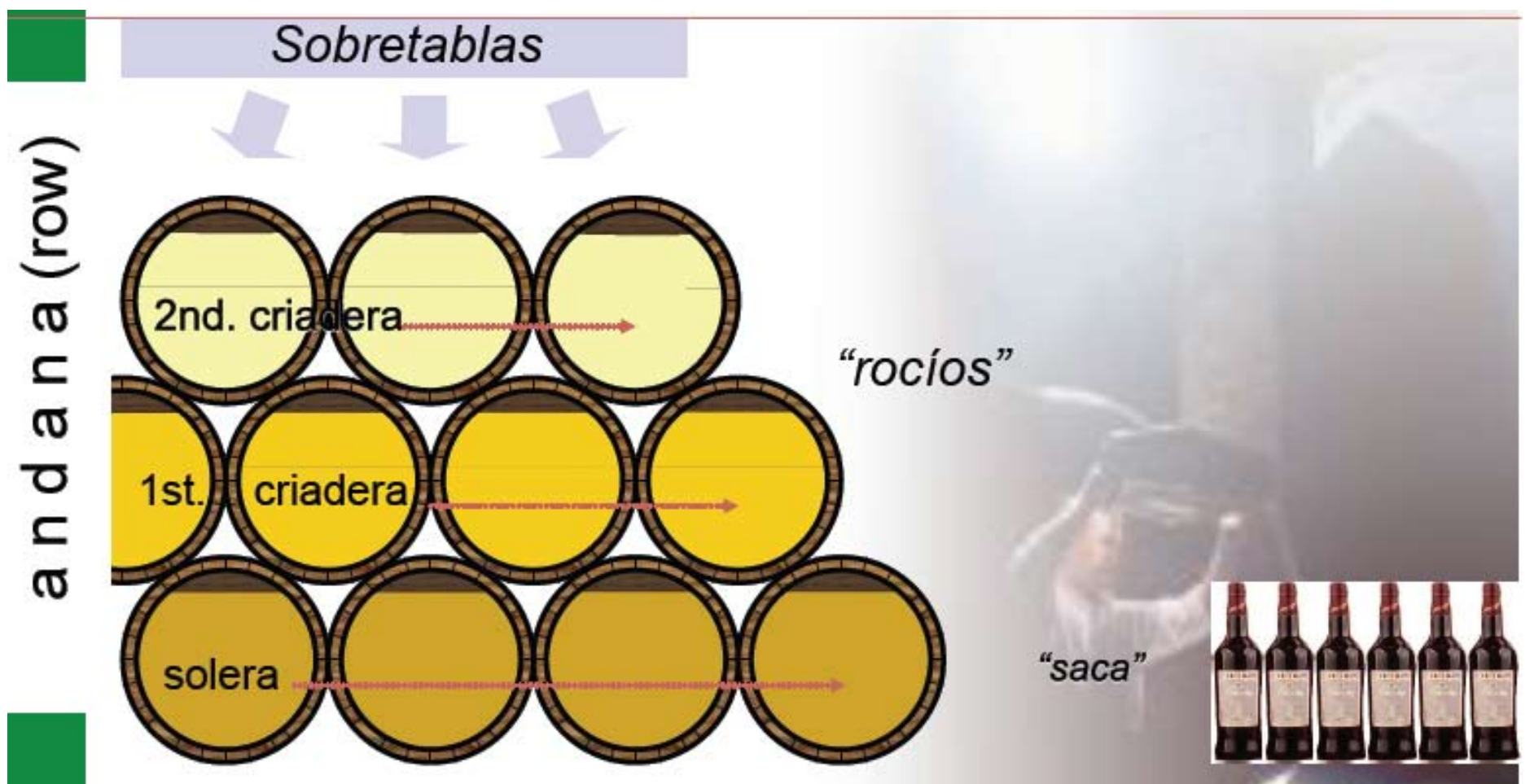
WINE IS GENTLY MOVED FROM THE TOP BARREL TO THE BOTTOM BY THE USE OF A *CANOA*  
*RUNNING THE SCALES* = AS WINE MOVES TO THE BOTTOM BARREL AND FROM THERE IT GETS BOTTLED

AGE OF THE WINE IS DETERMENIED BY HOW MANY BARRELS IT GOES THROUGH  
IT WILL ALWAYS HAVE A MIXTURE OF OLD WINE

SHERRY IN THE BOTTLE DOES NOT AGE WELL UNLESS IT HAS BEEN OXIDIZED  
BEST TO STORE UPRIGHT TO MINUMIZE SURFACE AREA

FINOS & MANZANILLAS ARE FRAGILE  
AMONTILLADO, OLOROSSO & CREAM LAST MONTHS  
PEDRO XIMENEZ LASTS A LONG TIME

BOTTLES SHOW AGE 7005 = YEAR AND DATE; THE FIFTH DAY OF 2007  
005007 = DAY & YEAR = FIFTH DAY OF 2007



# types of sherry

*FINO* = THE LIGHTEST AND DRIEST SHERRY. HAS A BIOLOGICAL SMELL. WAS UNDER THE FLOR THE ENTIRE TIME.

*MANZANILLA* = A FINO FROM SANLUCAR DE BARRAMEDA; HAS A CHAMOMILE FLAVOR, CAN BE SALTY SINCE THEY ARE MANUFACTURED NEXT TO THE SEA

*AMONTILLADO* = DARKER THAN A FINO, LIGHTER THAN AN OLOROSSO  
STARTS AS A FINO BUT THE FLOR BREAKS AND OXIDATION BEGINS  
IT GETS FORTIFIED IMMEDIATELY TO 17.5% THEN GOES INTO SOLERA TO BE OXIDIZED  
CAN HAVE A BIOLOGICAL SMELL WITH MORE SWEETNESS THAN A FINO  
USED AS AN APPERTIF GOOD WITH OLIVES, NUTS OR CHEESE

*OLOROSSO* = DARKER AND SWEETER, NUTTY AND HIGH GLYCERINE  
THE FLOR IS KILLED EARLY WITH FORTIFICATION USUALLY A FULLER BODIED WINE FROM THE ONSET  
PUT IN SOLERA FOR OXIDATION AND AGING TO INCREASE COLOR AND STRENGTH  
THERE ARE DRY OLOROSSOS AS WELL  
SWEET OLOROSSO IS BLENDED WITH PEDRO XIMENEZ

*PALO CORTADO* = BEGINS AS A FINO/MANZANILLA, NATURALLY LOSES FLOR AND BEGINS TO OXIDIZE  
HAS THE RICHNESS OF AN OLOROSSO AND CRISPNESS OF A FINO  
MARKED ON THE BARREL ≠ FORTIFIED TO 17% ALC AS IT MATURES MORE ALCOHOL IS ADDED AND MORE STICKS ARE ADDED TO LET YOU KNOW THE AGING POTENTIAL

*PEDRO XIMENZ* = *PX* = RAISIN WINE, GRAPES ARE DRIED IN THE SUN, FORTIFIED AND AGED IN SOLERA  
FLAVORS OF RAISIN AND MOLASES, VERY RICH WINES

**OTHER REGION OF NOTE MONTILLA-MORILES**



# madeira

## wine from the island of madeira in portugal

winemaking goes back to the age of exploration when madeira was used as a port of call  
to prevent wine from spoiling during shipping they added grape spirits to fortify  
madeira's unique flavor was discovered when ships would return with unsold barrels.

*"vinho de roda"* = wine made a round trip

the barrels had been heated for long periods of time by the sun and excessive movement which  
caused a unique flavor

today it is made by heating the wine to 140° f and oxidizing it  
creates robust wines which can last a long time after being opened

wine is stored in rooms called *"estufas"* = ovens which are heated by the sun  
18th century the american colonies consumed about 25% of all madeira

**GRAPES USED= SECIAL, BUAL, VERDELHO & MALVASIA**

BUAL & MAVASIA = SWEETER WINES

SENCIAL, VERDELHO, TINTA NEGRE = MORE DRY

## ESTUFAGEM

*CUBA DE CALOR* = LOW QUALITY, BULK AGED IN STEEL OR CONCRETE AND HEATED WITH  
COILS OR PIPES WRAPPED AROUND BARREL BY THE USE OF HOT WATER AT  
130° F FOR 90 DAYS

*ARMAZEN DE CALOR* = WINE IS LARGE WODDEN CASKS IN SPECIAL ROOMS WITH STEAM  
COMING FROM PIPES TO CREATE A SUANA. AGED FOR 6-12 MONTHS .  
A MORE GENTLE PROCESS

*CANTEIRO* = HIGH QUALITY; STORED IN WINERY IN WARM ROOMS HEATED BY THE SUN FOR  
20-100 YEARS A MILD PASTERIZATION AND EXPOSURE TO AIR

RESERVA = MIN. 5 YEARS

SPECIAL RESERVA = 10 YEARS AGED NATURALLY NO ARTIFICIAL HEAT

EXTRA RESERVA = 15 YEARS, RICH AND RARER

COLHEITA = SINGLE VINTAGE AGED LESS THAN VINTAGE MADEIRA

VINTAGE = FROM A VINTAGE AND AGED 20 YEARS

**CAN LAST OPENED UP TO 1 YEAR  
CAN LAST CLOSED UP TO 150 YEARS**

# ports

## HISTORY

THIRD OLDEST CLASSIFIED GROWING REGION 1756

English began shipping wines to England because they could not ship French wine because of war. thus many wineries bare English names such as Taylor-Fladgate, Smith-Woodhouse & Grahams

These wines are aged in oak for long periods of time which increases the cost of the wines

Because they are fortified they last a lot longer when they have been opened, sometimes several months to a year.

**CLIMATE** LOCATED ON THE DOURO RIVER VALLEY; NESTLED BETWEEN ATLANTIC AND SIERRA MARÃO  
DIVIDED INTO THREE REGIONS;  
*BAIXO CORGO* (WET, LOW END TAWNYS & RUBYS);  
*CIMA CORGO* (HIGHER QUALITY, VINTAGE AND LBV);  
*DOURO SUPERIOR* (VERY SMALL AMOUNT OF PORT)

STEEP SLOPES ALONG THE RIVER

## GRAPES

*TOURIGA NACIONAL, TOURIGA FRANCESA,  
TINTA BARRACAO, TINTA CÃO & TINTA RORIZ  
(TEMPRANILLO)*

THESE GRAPES HAVE SMALL DENSE CONCENTRATED  
FRUIT

## WHAT IS IT

PORT IS MADE WITH RED GRAPES THAT HAS BEEN  
FORTIFIED WITH AGUARDIENTE,  
A BRANDY; TO STOP FERMENTATION AND RETAIN  
SWEETNESS OF FRUIT.  
ALCOHOL LEVELS ARE 16-20%



# styles of port

**REDUCTIVE AGING** = WINES THAT HAVE BEEN PUT DIRECTLY IN BOTTLE TO MINIMIZE OXYGEN

**OXIDATIVE AGING** = WINES PUT INO BARREL TO OXIDIZE AND AGE. TAWNYS

## TAWNY PORTS

these wines are done in the solera method

the wines evaporate in barrels and they become oxidized.

they are gold and brown in color and are very nutty

tawny without vintage is about 7 years old

10yr, 20yr, 30 yr & 40 yr tawnys are an average age of what the blended barrels might be

## COLHEITA

like tawnys but from a single vintage and spend up to 20 years in barrel.

vintage will be written on the bottle

## GARAFEIRA

uncommon type; wines spend 3-6yrs in barrel and then spend 8 more in large glass vessels called *demijohns* and then they are bottled

## RUBY PORTS

less expensive ports, aged 3 years in barrel.

hey are darker and richer than tawnys and have a bright fruity character;

does not improve with age

## LBV LATE BOTTLE VINTAGE

designated to be a vintage port but spends too much time in barrel.

some are fined and filtered others are not.

they have a vintage and are lighter than vintage ports

filtered lbv's do not last long; unfiltered age better in bottle

to tell the difference an unfiltered has a traditional cork

## VINTAGE PORTS

a single vintage, houses decide two years after the vintage to declare.

only finest vinatges

aged up to 2 years in barrel and bottled unfiltered and aged 10-30 years in bottle