

BRANDY

Grapes are the most cultivated type of fruit for wine. Naturally it is the most distilled style of wine. It originated from the desire to extend the shelf life of wine for extended trips. The result: Brandy.

By: Brent Nakano



Brandy

Brandy is, according to the Alcohol and Tobacco Tax and Trade Bureau: “Spirits distilled from the fermented juice, mash or wine of fruit or from its residue at less than 95% alcohol by volume (190 proof) having the taste, aroma and characteristics generally attributed to brandy and bottled at not less than 40% alcohol by volume (80 proof)...Brandy distilled solely from the fermented juice or mash of whole, sound, ripe fruit or from standard fruit wine, with or without the addition of not more than 20 percent by weight of the pomace of such juice or wine or 30 percent by volume of the lees of such wine or both. Such brandy may include up to 30% on a proof gallon basis of lees brandy.”

Ingredients

The ingredients of brandy are simple: fruit, yeast, and water. What makes a difference in flavor is the type of fruit used. Even if the fruit used are grapes, in the way that Cabernet Sauvignon wine tastes different than Chardonnay, the specific type of fruit used will make a difference. Unlike cognac, Pisco, or Spanish brandy, American brandy does not require specific grapes to be used.

American Brandy Grapes

Colombard is a common grape used. However, a multitude of other grapes, including St. Emilion, Chardonnay, Pinot Noir, Grenache, Muscat and others are also used.

Production Process

1. Fruit is fermented into a wine using yeast.
2. The wine is then distilled.
 - The number of times that the “wine” is distilled will change the flavor of the final distillation
 - The proof age of the distillate will also vary. The higher the proof, the more neutral the flavor of the distillate.
3. The distilled wine may be aged depending on the style of brandy.
4. The duration of time as well as what the distillate is aged in will create significant differences in the final product.

Labeling

“Brandy” refers to grape brandy. Other types of fruit brandy must be further identified, e.g., “Peach Brandy.” Furthermore, Grape Brandy must be stored in oak containers for a minimum of 2 years.

Brandy de Jerez	
Regions	Grapes must be grown and the spirit must be distilled and packaged in either Atacama D.O. or Coquimbo D.O.
Grapes	Main Varieties: Airén grapes from Castile de la Mancha, and Palomino.
Distillation	<p>Still Type: Distillation occurs in column stills or copper pot stills known as “alquitaras”.</p> <p>Distillation Process</p> <ul style="list-style-type: none"> • Holandas are spirits with a strength of below 70% vol. and containing between 200 and 600 grams of volatile substances per hectolitre of pure alcohol. • Aguardientes are spirits of between 70% and 86% vol and containing between 130 and 400 grams of volatile substances per hectolitre of pure alcohol. • Destilados are spirits of between 86% and 94.8% vol and containing below 100 grams of volatile substances per hectolitre of pure alcohol. These are typically used to fortify Sherry.
Dilution	Dilution occurs, and the final proof is dependent on the intended style. Higher proof spirits are typically used for aged products, as the higher ABV helps to extract flavors from oak.
Aging/ Classifications	<p>Aging Vessel: 500-600 litre oak barrels made of American Oak (Quercus Alba), Spanish oak (Quercus Pyrenaica) and French oak, which have previously been seasoned with one of the traditional styles of sherry (Fino, Amontillado, Oloroso, Pedro Ximénez) for a minimum of three years.</p> <p>Age Denominations</p> <ul style="list-style-type: none"> • Solera, is aged for a minimum of six months and contains minimum volatile substances of 150 grams per hectolitre of pure alcohol. • Solera Reserva, is aged for a minimum of one year and contains a minimum volatile substances content of 200 grams per hectolitre of pure alcohol. • Solera Gran Reserva is the style aged longest. Although the regulations require a minimum average age of three years and a minimum volatile substances content of 250 grams per hectolitre of pure alcohol, most brands greatly exceed these requirements.
DO Website	brandydejerez.es



Photos Courtesy of Brandy De Jerez



Solera System Diagram

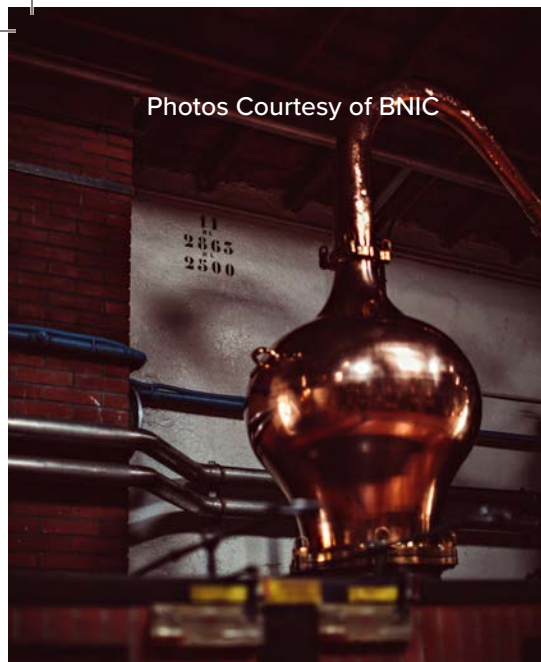
Solera System

The dynamic ageing system is based on the establishment of scales (criaderas) in which the brandy progressively flows through each of different “ages” until reaching the desired age. The final scale, called the “solera,” contains the oldest brandy and supplies the finished product.

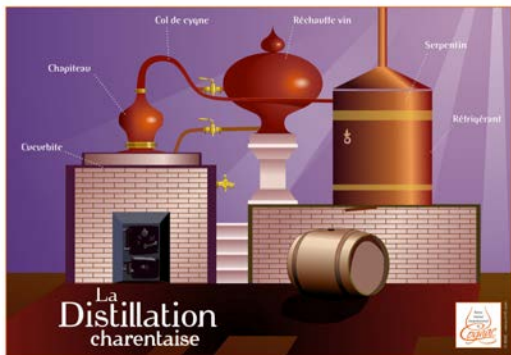
Once brandy has been removed from the solera (saca), it will be topped up (rocío) with more brandy from the next criadera and then that will be topped up with brandy from the subsequent

criadera, etc. The saca and rocío operations produce a complex blend of ages in each butt, meaning that the age of the brandy can only be expressed as an average in function of the number of scales in the solera system, how much brandy is removed at a time and how often this is done. Simply put, the average age of the finished brandy is the total volume in the system divided by the total amount taken out in a year.

The system of criaderas and soleras has been a genuinely unique element in wine production in Jerez since the XVIII century. It originally came about due to market demand for consistency; its uninterrupted use would later give rise to the birth of wines, vinegars and brandies with unique character derived from their blending through the ageing butts.



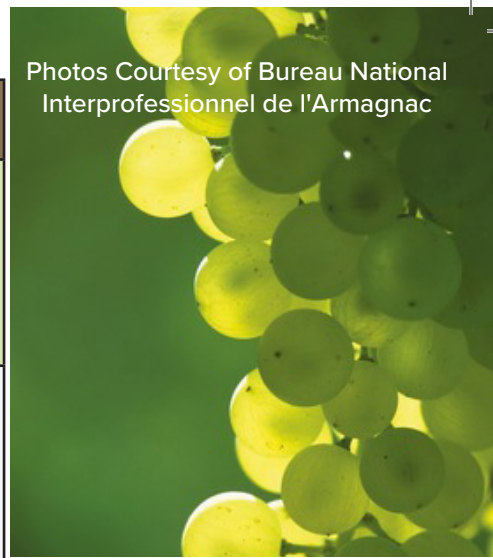
Photos Courtesy of BNIC



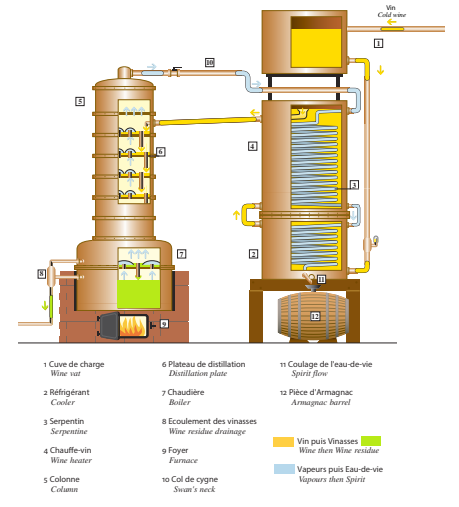
	Cognac
Regions	Cognac is made up of sub-regions called “crus”. They are: Grande Champagne, Petite Champagne, Borderies, Fin Bois, Bon Bois, Bois Ordinaires ou Bois a Terroirs <ul style="list-style-type: none"> • Like wine, each cru has a different terroir. • A cognac can source grapes from multiple crus. If it does, there is no cru designation on the label.
Grapes	Main Varieties: Ugni Blanc Accessory Varieties: Folle Blanche, Colombard, Montilis, Folignan Harvest is by machine when the grapes have a potential alcohol content of 9% ABV. No additional sugar or sulphites are allowed in fermentation.
Distillation	Still: Distillation occurs in copper pots in a process called "Charentais distillation". Process Distillation is made up of successive distillations called “chauffes” <ul style="list-style-type: none"> • The “first chauffe” is the initial distillation of wine, resulting in the brouillis, or first distillate. • The “second chauffe” (also called “repassé” or “bonne chauffe”) designates the distillation of the brouillis, and produces Cognac wine spirit once the beginning and the end of distillation (also called “phlegme”) are eliminated. This results in a distillate around 70% ABV. Heads or tails from the first or second distillation may be added to the wine or brouillis and distilled a second time.
Dilution	Dilution after aging is done to bring spirit to proof.
Aging Classifications/ Styles	Aging Vessel: Aging starts in new French oak from the Tronçais and Limousin forests. The typical barrel is 350 litres. Aging Process: After a period of time, the eaux-de-vie is transferred into older casks that have fewer extractable oak compounds for longer maturation. Age Duration <ul style="list-style-type: none"> • Very Special (VS): Aged at least two years • Very Superior Old Pale (VSOP): Aged at least four years • Extra Old (XO): Aged at least ten years • XXO (Extra Extra Old): Aged at least 14 years • Hors d'âge: Beyond Age Cognac may be colored using caramel color or boisé. Boisé is made by boiling wood chips in water and then reducing out the liquid to intensify the color.
AOC Website	cognac.fr

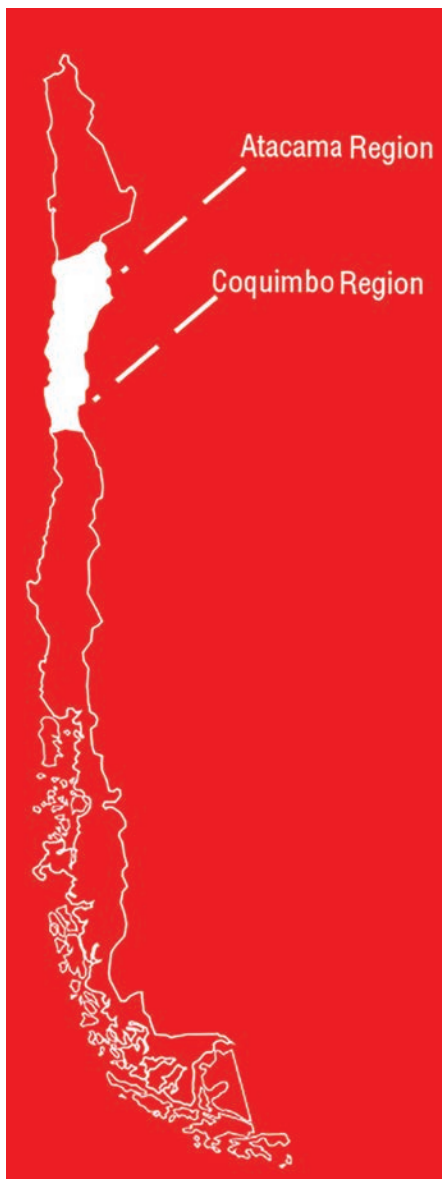
<p>Armagnac</p>	
<p>Bas-Armagnac, Armagnac Tenarèze and Haut-Armagnac</p>	<p>Regions</p>
<p>Main Varieties: Ugni Blanc, Folle Blanche, Colombar, Baco.</p> <p>Accessory Varieties: Clairette de Gascogne, Jurançon blanc, Plant de grasse, Meslier Saint François or Mauzac blanc and rosé.</p> <p>Grapes are harvested in October, pressed and then the juice is left to ferment naturally without the addition of any oenological products. The addition of yeast is allowed.</p>	<p>Grapes</p>
<p>Still: Continuous Armagnac alambic still specific to Armagnac. The still is made of copper, has a specific number of plates, and was endorsed in 1818 by a stove maker in Auch, Sieur Tuillière, under the reign of King Louis XVIII. Since then, it has been modified and improved by the region's distillers.</p> <p>Process: Armagnac is typically distilled once. The distillate comes off the still at 52% to 72% ABV with a typical range of 52% to 60%.</p>	<p>Distillation</p>
<p>Dilution after aging to bring spirit to proof</p>	<p>Dilution</p>
<p>Aging Vessel: 400 litre oak barrels mostly from the forests of Gascony or Limousin.</p> <p>Aging Process:</p> <ul style="list-style-type: none"> The eaux-de-vie is initially placed in new barrels until the desired oak extract occurs. It is then transferred to older barrels in order to avoid an excessive extraction. During the first year, the distillate is quality controlled in order to separate any eaux-de-vie that do not deserve the appellation. Cellars, where the ageing occurs, are required to meet specific criteria to be certified: quality of the oak, capacity of the containers, buildings, and aeration. <p>Age Duration.</p> <ul style="list-style-type: none"> VS: Aged a minimum of 1 year VSOP: Aged at least 4 years XO/ Hors d'Age: Aged at least 10 years Blanche Armagnac AOC 3 months maturation in neutral containers to preserve its aromas and clear appearance. There are also vintage and non-vintage Armagnacs 	<p>Aging Classifications/ Styles</p>
<p>armagnac.fr</p>	<p>AOC Website</p>

Photos Courtesy of Bureau National Interprofessionnel de l'Armagnac



L'Alambic Armagnacais
Armagnac Still





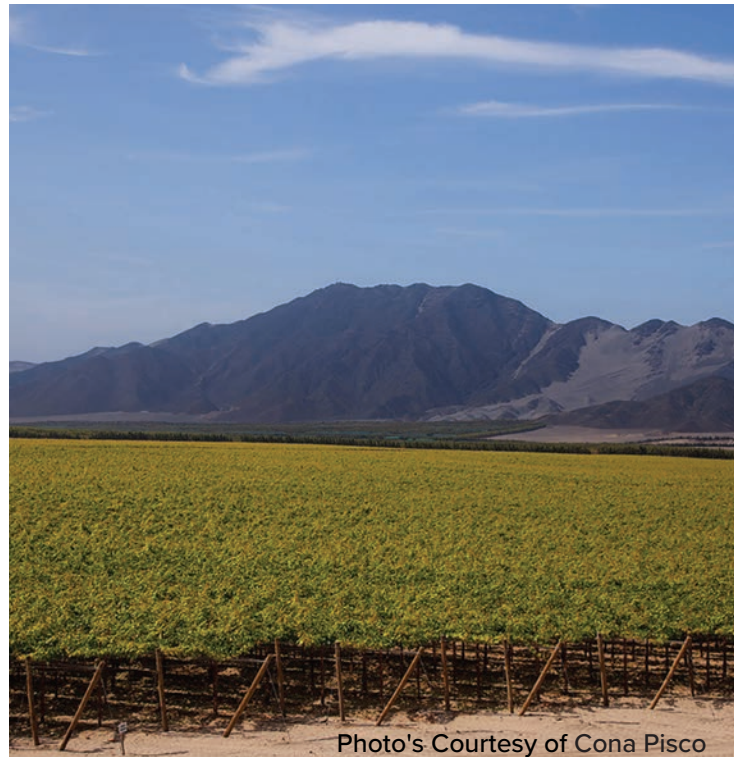
Pisco	Chile Pisco
Regions	Grapes must be grown and the spirit must be distilled and packaged in either Atacama Denominación de Origen (D.O.) or Coquimbo D.O.
Grapes	<p>Main Varieties: Muscat of Alexandria or Italia, Moscatel Rosada or Pastilla, Torontel, Muscat of Austria, Pedro Jimenez</p> <p>Accessory Varieties: Hamburg, Early White Muscat, Yellow Muscat, Black Muscat, Muscat Orange, Canelli Moscato, Frontignan Muscat, Musque Vrai Chaselas</p>
Distillation	<ul style="list-style-type: none"> Primarily occurs in pot stills (discontinuous cycle stills), but continuous stills are allowed. Number of distillations is undefined. The eau de vie is distilled to 60% ABV to 73% ABV.
Dilution	Dilution occurs, and the final proof is dependent on the intended style. Higher proof spirits are typically used for aged products, as the higher ABV helps to extract flavors from oak.
Aging	<ul style="list-style-type: none"> Cask are typically made of American Oak, French Oak or Raulí Beech After distillation pisco must have a minimum rest of 60 day in inert containers. Pisco de Guarda (Aged pisco): Aged in wood for at least 180 days. Piscos de Envejecido Aged in wood for at least 360 days.
Classifications/ Styles	<p>Styles are based upon the bottle proof of the spirit</p> <ul style="list-style-type: none"> Pisco Corriente o Tradicional, 30% ABV to 35% ABV (60 to 70 proof). Pisco Especial, 35% to 40% (70 to 80 proof). Pisco Reservado, 40% (80 proof). Gran Pisco, 43% or more (86 or more proof).
DO Website	piscochile.com/en/home/

Photo's Courtesy of Pisco Chile

Peru Pisco	Pisco
Mandated by the government in 1991, Peruvian Pisco must be made in the country's five official D.O. (Denomination of Origin) departments: Lima, Ica, Arequipa, Moquegua and Tacna (only in the valleys of Locumba, Sama and Caplina).	Regions
Non-Aromatic: Quebranta, Negra Criolla, Mollar, Uvina (grown specifically in Lunahuaná), Pacarán and Zúñiga (in the province of Cañete, department of Lima) Aromatic: Italia, Moscatel, Albilla, and Torontel	Grapes
May only occur in copper pots, and may only be distilled once.	Distillation
Peru pisco may not be diluted with water.	Dilution
Peru pisco is not allowed to be aged. Rather, it is rested for a minimum three months in vessels of "glass, stainless steel or any other material which does not alter its physical, chemical or organic properties."	Aging
Four distinct styles depending on the grapes used <ul style="list-style-type: none"> • Pisco Puro (Pure): Made from a single variety of grape, mostly Quebranta, although Mollar or Common Black can be used. No blending between varieties is accepted. • Pisco Aromáticas (Aromatic): Made from Muscat or Muscat-derived grape varieties, and also from Albilla, Italia and Torontel grape varieties. Pisco should only contain one variety of grape in any production lot. • Pisco Mosto Verde (Green Must): Distilled from partially fermented must, and requires distillation before the fermentation process has completely transformed the sugars into alcohol. • Pisco Acholado (Multivarietal) produced by a combination of: <ul style="list-style-type: none"> - Pisco, aromatic and/or non-aromatic grapes. - Aromatic and / or non-aromatic pisoras. - Aromatic and/or non-aromatic Pisco musts. - Fully fermented fresh wines from grapes 	Classifications/ Styles
Peru National Pisco Commission (Conapisco): conapisco.org.pe	DO Website



Photo Courtesy of Pisco Chile



Photo's Courtesy of Cona Pisco


Pomace Brandy	
Regions	<p>Many pomace brandies have geographical indication (GI) names. These include:</p> <ul style="list-style-type: none"> - France: Marc - Italian: Grappa - Portugal: Aguardente Bagaceira - Greece: Τσικουδιά - Spanish: Orujo <p>Each Pomace Brandy has Sub-GI's</p>
"Grapes"	<p>When grapes are fermented in wine making, the residual solids of the skins, stems, and seeds are called pomace or "marc".</p> <p>The duration of time the pomace spends in fermentation depends on the style of wine.</p> <ul style="list-style-type: none"> • Grape pomace is either fermented, semi-fermented, or unfermented, depending on the duration the pomace was in contact with the wine. • Fermented pomace, the byproduct of red wine production, is ideal for Pomace Brandy because it has a high alcohol content. • Semi-fermented pomace, the byproduct of rose production, is a type of pomace that has less alcohol content than fermented pomace because it is only fermented for a short period of time before being removed from the juice. • Unfermented pomace is the byproduct of white wine production. In white wine production, grape skins, seeds and stems are separated from the juice before fermentation. <p>A quantity of lees may be added to the grape marc that does not exceed 25 kg of lees per 100 kg of grape marc used.</p>
 <p style="text-align: right;">Photo Courtesy of Thomas Verbrug</p>	
Distillation	<p>According to the European Union Law, grape marc must be fermented and distilled either directly by water vapor or after water has been added. Furthermore, both of the following conditions are required:</p> <ul style="list-style-type: none"> • Each and every distillation is carried out at less than 86 % vol. • The first distillation is carried out in the presence of the marc its
Dilution and Finishing	<p>Dilution occurs, and the final proof is dependent on the intended style. Higher proof spirits are typically used for aged products as the higher ABV helps to extract flavors from oak. European Union Law requires that:</p> <ul style="list-style-type: none"> • The minimum alcoholic strength by volume of grape marc spirit or grape marc shall be 37.5 % ABV. • No addition of alcohol, diluted or not, shall take place. • Grape marc spirit or grape marc shall not be flavoured. This shall not preclude traditional production methods. • Grape marc spirit or grape marc may only contain added caramel as a means of adjusting the color.
Classifications	<p>Marc classifications correspond to European Union GI's: Marc de Bourgogne, Marc des Côteaux de la Loire, Marc des Côtes-du-Rhône, Marc de Provence, Marc du Languedoc, Marc d'Alsace Gewürztraminer</p> <p>Grappa</p> <ul style="list-style-type: none"> • Young Grappa: Rested in Steel tanks before bottling • Aged: Remans in Oak Barrels for several years before being bottled • Flavored Grappa: Honey, "Medicinal" herbs or fresh picked berries are used to flavor grappa



Photo Courtesy of Moritz Knoring

IMMATURE BRANDY:

- Grape brandy stored in oak containers for less than 2 years.

Lees Brandy

- TTB: “Brandy distilled from the lees or sediment from fermentation of fruit wine
- “Lees Brandy” is grape lees brandy. Other types of lees brandy must be further identified, e.g., “Cherry Lees Brandy”

RESIDUE BRANDY

- TTB: Brandy distilled wholly or in part from the fermented residue of fruit or wine
- “Residue Brandy” is grape residue brandy. Other types of residue brandy must be further identified, e.g., “Orange Residue Brandy”

• **NEUTRAL BRANDY**

- TTB Any type of brandy, e.g., “Fruit Brandy,” “Residue Brandy,” etc., distilled at more than 85% alcohol by volume (170 proof) but less than 95% alcohol by volume (190 proof)
- “Neutral Brandy” is grape neutral brandy. Other types of neutral brandy must be further identified, e.g., “Neutral Plum Brandy,” “Neutral Citrus Residue Brandy”

• **SUBSTANDARD BRANDY**

- TTB Brandy:
- (a) distilled from the fermented juice, mash or wine having a volatile acidity calculated, exclusive of water added to facilitate distillation, as acetic acid and exclusive of sulfur dioxide, in excess of 0.2 gram per 100 cubic centimeters (20 degrees C.)
- (b) distilled from unsound, moldy, diseased or decomposed juice, mash, wine, lees, pomace or residue or which possesses any taste, aroma or characteristic associated with product-distilled from such material
- “Substandard Brandy” is grape substandard brandy. Other types of substandard brandy must be further identified, e.g., “Substandard Fig Brand”

Resources

- TTB Chapter 4 Class and Type Designation
- https://www.ttb.gov/images/pdfs/spirits_bam/chapter4.pdf

Classic Brandy Cocktails

- Brandy Cocktail
Brandy + Curaçao + Angostura Bitters + Peychaud's Bitters
- Brandy Alexander
Brandy + Crème de Cacao + Cream
- Metropolitan
Brandy + Sweet Vermouth + Simple Syrup
- Sazerac
Brandy (typically Cognac) + Absinthe + Peychaud's Bitters + Sugar
- Sidecar: Brandy + Orange Liqueur + Lemon Juice



Photo Courtesy of Julien Boisard | IDAC

Apple Brandy or Applejack	
Regions	United States
"Apples"	Unlike its European counterparts, Applejack or American Apple Brandy does not have any requirements as to where the apples need to be grown, or what type of apples need to be used.
Distillation	There are no requirements on the stills used. The only requirement is that the spirit is distilled at less than 95% alcohol by volume (190 proof) and possess "the taste, aroma and characteristics generally attributed to brandy."
Dilution and Finishing	<ul style="list-style-type: none"> Bottled at not less than 40% alcohol by volume (80 proof)
Aging	There are no age requirements. There are unaged apple jacks, as well as ones aged 12 years in Oak.
Classifications	<p>Applejack 100% Apple Distillate</p> <p>Blended Applejack</p> <ul style="list-style-type: none"> Applejack (at least 20%) Neutral grain spirit (at most 80%) According to Lairds, an apple brandy distillery founded in 1698: "To meet consumer demand for lighter, lower proof spirits, the Laird family created the Blended Applejack spirit category in 1972. Today, best described as an apple whiskey, Laird's Applejack is a pure spirit beverage made from a blend of apple brandy and neutral grain spirits."

Other Fruit brandy

An abundance of fruit has historically been the reason other fruit brandies were made. In Czech's distilling tradition, which continues to today, gardening clubs have distilleries. Other names include: Eaux de vie (France), Rakija (Balkans), and Obstler (Austria/Germany/Switzerland).

Pear Brandy

- Brandy made from pears

Cherry Brandy "KIRSCHWASSER"

- German for "cherry water" or kirsch is a clear, colorless brandy traditionally made from double distillation of morello cherries.

Plum Brandy "Slivovitz" (Cechz)

- TTB: "Type of FRUIT BRANDY made from plums" Other Brandies

Brandy from a mix of Fruit

Made from a variety of fruit found throughout Europe. Traditional fruit must come from the Austria, Germany and Switzerland region.

DRIED FRUIT BRANDY

- TTB: Fruit brandy is distilled from sound, dried fruit or from the standard wine of such fruit. For brandies of this type (except Raisin Brandy, see below), the word "brandy" must be qualified with the name of the fruit from which it was made and preceded by the word "dried," e.g., "Dried Apricot Brandy."
- Raisin Brandy is Dried fruit brandy made from raisins



Photo Courtesy of Pixabay



Photo Courtesy of Anna Tis



Photo Courtesy of Julien Boisard | IDAC



Photo Courtesy of Julien Boisard | IDAC

Calvados	
Regions	<p>Calvados AOC</p> <ul style="list-style-type: none"> In each area, the orchards are composed of at least 70% of bitter or bittersweet varieties. Calvados does not require a mandatory distillation method but it is essentially produced using column still. Ages for at least two years in oak barrels before being marketed. <p>Calvados Pays d'Auge AOC</p> <ul style="list-style-type: none"> Undergoes a double distillation process in a pot still. Distilled ciders contain a maximum perry pear content of 30%. Must be aged for at least two years in oak barrels before being marketed. <p>Calvados Domfrontais AOC</p> <ul style="list-style-type: none"> At least 30% of perry pears are used to produce the cider that is distilled to make this type of Calvados. Obtained after one distillation using a column still. Must be aged for at least three years in oak vats before being marketed.
Apples/Pears	<p>Cider apples are different from those for cooking, those for eating, or those used as dessert apples. They are small and are rich in tannins. Cider apples are generally classified in four families: bitter, bitter-sweet, sweet and acidulous. The apples are mixed together to build a balanced cider and later a harmonious Calvados. Calvados is never made from just one variety of apples or pears.</p>
Fermentation	<ul style="list-style-type: none"> The fermentation of musts is done naturally in tanks. The specifications do not permit any gasification, acidification, sweetening or pasteurization. The ciders are ready for distillation when the sugars have been completely consumed and contain at least 4.5% alcohol at 20° C. A minimum period of 21 days, during which the fermentation took place, is fixed between the extraction of the juice and the distillation for Calvados and Calvados Pays d'Auge, and thirty days for Calvados Domfrontais.
Distillation	<p>1x or 2x distilled</p> <p>Only the generic Calvados appellation allows a choice between the two distillation methods, in pot stills or in column stills.</p>
Dilution	
Aging/Classifications	<p>Aged in Oak from</p> <ul style="list-style-type: none"> VS (Very Special) - Trois étoiles - Trois pommes : at least 2 years of aging Réserve - Vieux : at least 3 years of aging V.O. (Very Old) - VSOP (Very Superior Old Pale) - Vieille Réserve : at least 4 years of aging Hors d'Age - XO - Très Vieille Réserve - Très Vieux - Extra - Napoléon : at least 6 years of aging
DO Website	<p>https://www.idac-aoc.fr/en/</p>