

## Addendum regarding:

### The 2021 Certified Specialist of Spirits Study Guide, as published by the Society of Wine Educators

**Note:** This document outlines the substantive changes to the 2021 Study Guide as compared to the 2020 version of the CSW Study Guide. All page numbers reference the 2020 version. Please note that in addition to the information noted below, the tables concerning top-selling brands of particular types of spirits have been updated to reflect the most current statistics available.

**Page 10:** The information regarding congeners was expanded to include the following:

**Congeners:** The preceding explanation of distillation has been simplified by using the example of a solution made of only ethyl alcohol and water. However, many other compounds are created during fermentation and as a result, there are other compounds besides water and alcohol present in a fermented solution. Known as congeners, these compounds are responsible for much of the aroma and flavor—besides that of pure ethyl alcohol and water—of a fermented beverage or a distilled spirit. Specific congeners include the various acids, esters, aldehydes, fusel oils, and alcohols (other than ethanol) that are developed during fermentation.

During distillation, congeners may vaporize and blend in with the ethanol–water vapors; however, each specific congener will react differently based on three factors: boiling point, solubility (in ethanol and water), and specific gravity. In addition, the heat of the distillation process—via a series of chemical changes known as *pyrolysis*—may cause some compounds to change form, creating new and different congeners that may be passed onto the finished product.

Congeners contribute to the overall flavor of a product even though they may be present in miniscule quantities and are often measurable in terms as small as parts per million. While many congeners contribute to favorable aromas and flavors, some of them can be undesirable. As such, one of the many jobs of the master distiller is the control of congeners during the production process. During distillation, the type and level of congeners that will remain in the finished product can be controlled via the shape, size, and type of still used as well as by the cut points and the manner in which the distillate is allowed to exit the still.

**Page 18:** the description of vodka was updated to reflect recent changes in the US law and now reads as follows: **Vodka and Other Neutral Spirits:** Vodka is typically a clear, water-white spirit with a relatively neutral flavor profile. It may be produced from any fermentable base material. The regulations defining vodka in both the European Union and the United States are designed to produce a spirit that is rather neutral in character and low in congeners. However, that is not to say that vodka is devoid of flavor—and vodka products can certainly be distinguished depending on the base material, water source, and production procedures used. Still, the neutral character of many styles of vodka makes it ideal for use in cocktails and mixed drinks.



**Page 29:** the US definition of vodka was updated to read as follows:

In the United States, vodka is defined as a type of neutral spirit, per the following regulations:

- Vodka is a neutral spirit which may be treated with up to two grams per liter of sugar and up to one gram per liter of citric acid.
- Vodka may not be aged or stored in wood barrels, except when stored in paraffin-lined wood barrels and labeled as bottled-in-bond. (Note: *flavored vodka*, which may include oak-aged vodka, is a separate product category discussed later in this chapter.)
- Vodka treated and filtered with activated carbon or activated charcoal may be labeled as “charcoal filtered”
- It should be noted that the long-standing requirement that vodka be “without distinctive character, aroma, taste, or color” was removed from the US definition of vodka in mid-2020

**Page 32:** The list of EU vodkas with protected geographical indication (PGI) status for its vodka (in addition to Poland’s) was updated to include the following:

- Estonia (*Eesti viin*/Estonian Vodka)
- Sweden (*Svensk Vodka*/Swedish Vodka)
- Finland (*Suomalainen Vodka*/*Finsk Vodka*/Vodka of Finland)
- Lithuania (*Originali lietuviška degtinė*/Original Lithuanian Vodka)
- Norway (*Norsk Vodka*/Norwegian Vodka)

**Page 37:** the description of Everclear was updated to include the following information: Everclear is bottled in several versions—some as high as 95% abv (190 proof).

**Page 39:** the section on Soju was expanded and now reads as follows: Soju is a Korean distilled spirit that was traditionally produced from rice. However, during the Korean War when rice was in short supply, distillation using rice was prohibited and alternative starch sources were found. This prohibition has long since been lifted, but the practice of using a range of base ingredients remains. Modern soju may be produced from rice as well as barley, wheat, tapioca, potatoes, sweet potatoes, or other base ingredients. The alcohol content of soju varies widely, from as low as 16% alcohol by volume to as much as 45% alcohol by volume. Soju is produced using various distillation methods—including the use of a *soju gori* (traditional earthenware distilling apparatus)—or via pot still, hybrid still, or continuous still distillation.

**Page 39:** The information on tasting and serving vodka was expanded and now includes the following: Vodka is considered by many to be the ultimate base for mixed drinks and cocktails. It is happily consumed across the globe in Cosmopolitans, Black Russians, Screwdrivers, and countless other drinks. High-quality vodkas are also enjoyed straight up or on the rocks. Vodka also stars in a long list of variations on the Martini; these include the Apple Martini, Lemon Drop Martini, and Espresso Martini (among others). The iconic Martini has a good deal of mythology concerning its creation; nevertheless, it is known that the Martini was originally created as a gin-based cocktail. However, as vodka became popular in America, bartenders began to produce cocktails with vodka instead of (or in addition to) their classic base spirit. As such, the Vodka Martini (*Vodkatini*)—originally known as the *Kangaroo* or *Kangaroo Cocktail*—and all its subsequent variations came to be. Another vodka-based favorite, the Screwdriver, was originally a variation on the classic Orange Blossom Cocktail (made with gin and orange juice).

**Page 50:** the section on Absinthe was updated and expanded to read as follows: Absinthe is a spirit with a colorful past. Loosely defined, it is a flavored spirit produced using anise, sweet fennel, and the flowers and leaves of *Artemisia absinthium*, also known as grand wormwood. Other botanicals may be included as well.

The exact history of absinthe is rife with legend; however, it is believed that it was first produced in the Neuchâtel Canton of Switzerland. One widely held story dates to 1792, when Dr. Pierre Ordinaire, a French doctor living in Switzerland, produced a medicinal elixir flavored with wormwood, green anise, and fennel. Another version of the story dates to the same time and place but claims that the Henriod sisters were making the potion before Dr. Ordinaire's arrival.

In either case, the story continues with a gentleman known as Major Henri Dubied who—along with his son Marcelline and his son-in-law Henry-Louis Pernod—acquired the formula in 1797. Together, they opened the first absinthe distillery, located in Couvet, Switzerland. In 1805, they built a second distillery in Pontarlier, France, under the name Maison Pernod Fils. Pernod Fils remained one of the most popular brands of absinthe up until 1914, when the drink was banned in France. (Note: in 2009, the former Swiss municipality of Couvet merged with several other towns to form the district now known as Val-de-Travers.)

Absinthe was wildly popular in France in the late nineteenth and early twentieth centuries, particularly among Paris-based artists and writers. Ernest Hemingway, Charles Baudelaire, Henri de Toulouse-Lautrec, Vincent van Gogh, and Oscar Wilde were all known to enjoy absinthe. Because of its association with the bohemian lifestyle, absinthe was opposed by some social conservatives and came to be thought of as a dangerous and addictive drug that was often blamed for hallucinations and for provoking criminal activities.

The alleged harmful effects of absinthe were blamed on the chemical compound *thujone*—despite the fact that the spirit contains only trace amounts of the substance. By 1915, absinthe had been banned in in much of Europe, including France, the Netherlands, Belgium, and Switzerland.

It was eventually proven that absinthe was no more dangerous than any other spirit made with the same level of alcohol by volume. In the 1990s, realizing that the United Kingdom had never outlawed absinthe, Britain began to import Hill's Absinthe from the Czech Republic. This led to renewed interest in the once-maligned spirit, and beginning in 1998, one by one the countries of Europe legalized absinthe.

Absinthe is currently legal in the United States, but it must contain less than 10 parts per million (ppm) of thujone. (This equates with the US definition of "thujone-free," which includes a tolerance of 10 ppm, about 10 mg/L.) As most contain less than 10 ppm of thujone, this effectively legalizes absinthe in the United States, (with just a few versions excepted).

Absinthe is produced by infusing a base spirit with botanical flavorings—typically anise, fennel, and *Artemisia absinthium* in addition to other herbs and spices. After a period of maceration, the base spirit is re-distilled to yield a flavorful, clear spirit. If bottled soon after distillation (with or without the addition of water), the product may be referred to as *blanche* (white) absinthe. Green (*verte*) versions of absinthe will undergo a secondary maceration with herbs, which will lend a natural, clear green color to the spirit. This green color led to the spirit's nickname *la fée verte* (the green fairy).

Traditionally, absinthe is served diluted with ice water in a ratio of one-part absinthe to three-to-five parts water; it may also be sweetened to taste. The water will “release the green fairy,” meaning that it will cause the beverage to louche, or turn milky in appearance, as well as allow for the blossoming of the spirit’s aromas and flavors.

While absinthe is traditionally an unsweetened spirit, some versions do contain sweeteners and may even be classified as a liqueur. Many countries and regions do not have a formal definition of absinthe and as such, flavorings and colorings are sometimes permitted.

#### **Absinthe de Pontarlier PGI**

In August of 2019, the European Union granted protected geographical indication (PGI) status to Absinthe de Pontarlier, a product of the Doubs Department of France (located in the Alps, along the border between France and Switzerland). Absinthe de Pontarlier PGI may be produced using an unspecified base spirit, but the use of locally grown wormwood (*Artemisia absinthium*) is mandatory. In addition to wormwood, it must be produced using anise seed; other botanicals are optional. The drying of the wormwood, the maceration of the botanicals, the re-distillation of the macerate, any post-distillation procedures, and the bottling of the spirit must all be carried out at a single location within the defined region of origin. Absinthe de Pontarlier is required to be bottled at a minimum of 45% abv and may be unsweetened; however, sugar is allowed to be added in levels up to 35 grams per liter of finished product.

**Page 51:** the section on Pernod and Pastis was expanded to include the following: In the EU, Pastis is defined as an anise-flavored spirit drink that contains natural extracts of licorice root. The licorice root provides a distinctive aroma and flavor, as well as a sensation of sweetness due to *glycyrrhizic acid*. (Glycyrrhizic acid is reported to contain 30 to 50 times the sweetness of table sugar.) EU Pastis must be bottled at a minimum of 40% abv and may contain up to a maximum of 10% sugar. A specific style—known as *Pastis de Marseille*—must contain a required minimum level of anethole, a pronounced anise flavor, and a minimum of 45% abv.

**Page 52:** the section on ouzo was expanded to include the following: In the EU, Ouzo is a protected product (protected geographical indication) of Cyprus and Greece. The Greek island of Lesbos is a traditional center of ouzo production, and two cities on the island—Mytilene and Plomari—have specific PGI designations for their ouzo. Three other areas of Greece—Kalamata, Thrace, and Macedonia—also produce regional versions of PGI-designated ouzo.

**Page 52:** the section of Akvavit was updated to include the following: Akvavit is generally based on a neutral spirit, typically distilled either from grain or potatoes. After distillation, the base spirit is flavored with caraway and may be further flavored with herbs, spices, or fruit oil. Dill is often included and—according to the laws of the EU as well as the United States—may even be the primary flavor. Fennel, cardamom, cumin, anise, lemon peel, orange peel, and even amber are used in some versions. Each brand has its own unique formula; however, caraway is typically the dominant flavor.

Sweden has protected geographical indication (PGI) status for its akvavit, known locally as *Svensk Akvavit* or *Svensk Aquavit*. Swedish Akvavit is made using a base spirit derived from wheat, rye, barley, oats, or potatoes grown in Sweden. Caraway is typically the dominant flavor, but dill, cumin, and fennel are often included as well.

In 2020, Norway also achieved PGI status for its akvavit. Norwegian Akvavit (*Norsk Akvavit*) must be produced using a base spirit derived from potatoes; and at least 95% of the potatoes must be grown in

Norway. It may be flavored with either dill or caraway (as the dominant flavor), and many other botanicals are allowed to be used as well. Norwegian Aquavit is required to be aged in wooden casks for at least six months before bottling.

**Page 56:** the EU definition of whiskey was updated to include the following:

- EU regulations do not allow whiskey to be sweetened nor flavored, although caramel coloring is allowed to be added in order to adjust the color.
- The EU Spirits regulations were updated in 2020 to include a definition of single malt whiskey. This definition states that the legal name of whiskey may be supplemented by the term *single malt* “only if it has been distilled exclusively from malted barley at a single distillery.”

**Page 61:** the definition of Scotch whiskey was expanded to include the following: preparation of the grain for use in fermentation must take place at the distillery, and “only by endogenous enzyme systems.” This means that no added enzymes may be used in the saccharification process; this is a strict standard somewhat unique to Scotland.

**Page 62:** the following information was added to the section entitled “The Flavor of Scotch:”

**Floor Malting:** Floor malting is a traditional process used to prepare barley for fermentation. The process—while no longer widely used—is practiced at a few distilleries, including Balvenie, Laphroaig, Bowmore, Highland Park, and Kilchoman, among others. Floor malting is said to add to the distinct characteristics of a distillery’s single malt products and according to some, allows the grain to absorb more peat smoke flavor from the kiln due to moisture retained on the surface of the grain.

The process begins after the grain has been soaked with water. The soaked grains are spread out over a smooth floor—typically stone or cement—and allowed to germinate for a few days (typically four to seven, depending on the season). During this time, the grains are turned over with shovels (or other equipment) every eight hours or so to release any built-up heat and carbon dioxide. When it has developed the proper level of sugar and enzymes, the grain is collected and moved into the kiln to stop the malting process.

It should be noted the distilleries that practice floor malting may also participate in the more common process of purchasing malt from commercial maltsters. Leading producers of commercial malt in the United Kingdom include Bairds (established 1823), Crisp Malt (established 1870), and Simpsons (established 1862).

**The Doig Ventilator:** The iconic cupola (the curved tower, often described as resembling a pagoda) adorning the roofline of many Scottish distilleries is technically known as a Doig Ventilator. Credited to Scottish engineer Charles Doig (1855-1918), the Doig Ventilator increases air flow by drawing air up and out of the kiln. The first of many Doig Ventilators was installed at Speyside’s Dailuaine Distillery in 1889. Sadly, this original example was destroyed by fire in 1917; however, the curved outlines of the Doig Ventilator—whether from a working ventilator or as a purely cosmetic architectural feature—remains an enduring symbol of Scotch distilling.

**Page 64:** the information on the Highlands was updated to include the following: There are over forty distilleries currently operating throughout the Highland area, the best known of which include the Dalmore, Glenmorangie, Torabhaig, and Dalwhinnie.

**Page 64:** the information on the Lowlands was updated to include the following: The region currently has just over a dozen distilleries—including Ailsa Bay, Auchentoshan, Bladnoch, Cameronbridge, and Glenkinchie—along with several new projects in the works.

Page 64: the information on Speyside was updated to include the following: With over fifty distilleries, Speyside has the largest number of operating distilleries of the five regions. Located in the northeast corner of the Scottish Highlands, the lush, fertile valley of the Spey River is renowned for the abundance and quality of its water. Speyside is recognized as an area that produces a complex, smooth style of single malt Scotch, such as those produced by the Macallan, as well as the lighter styles produced by Glenfiddich and the Glenlivet. Speyside whiskies are among the most recognized and widely distributed brands of Scotch whisky; these include (in addition to those already mentioned) Balvenie, Aberlour, and Tamdhu.

**Page 64:** the information on Islay was updated to include the following: The small island of Islay (pronounced *eye-luh*)—measuring just 25 by 15 miles (40 by 24 kilometers) and known as *the Queen of the Hebrides*—is known to produce a distinctive style of Scotch whisky. Many of the island’s distilleries are located along the island’s coast, and this is reflected in the aroma profile of the whisky, which is often said to include notes of salty sea breeze, iodine, or seaweed. Trees are widely scattered on Islay, meaning that much of the island’s peat is free of rotting wood; Islay peat is thus considered to be of the highest quality. As such, many of the island’s whiskies have a medium to heavy peat influence and are described as having a “smoky” or “medicinal” character. Islay is the southernmost of Scotland’s Western Isles and boasts a sunnier climate than many of the other Scotch-producing regions. Classic examples of Islay whisky include Lagavulin, Ardbeg, and Laphroaig.

**Page 71:** the information on the number of Irish whiskey distilleries was updated to read as follows: In the mid-19<sup>th</sup> century, there were close to one hundred licensed whiskey distilleries in Ireland. However—as market share was lost to Scotch, Canadian whisky, and Bourbon—these numbers dwindled to the extent that by the mid-1980s, only a few remained. The late 1980s marked the beginning of a resurgence for Irish whiskey, and at present there are more than thirty whiskey distilleries in operation. With several new distillery projects in the works and rumors of even more planned for the near future, this number is sure to continue to increase.

**Page 89:** the description of the Grande Champagne region was updated to read as follows: Grande Champagne, located to the south of the Charente River, is considered the most prized of all the crus. The area contains a good deal of crumbly, well-drained chalk soil—layered over limestone and sandstone bedrock—along with a maritime climate. Cognac from the Grande Champagne region is considered to be the highest quality and may take twenty to thirty years to mature. Grande Champagne cognac has been described as both intense and elegant, with fruity and floral aromas. The Grande Champagne area, despite its name, is less than half the size of the Petite Champagne area, although it produces nearly as much cognac each year. (Note, in Cognac, the term *Champagne* does not refer to sparkling wine but is rather a derivation of the Latin term *champ* meaning “an open plain” or “meadow.”)

**Page 89:** the description of the Petite Champagne region was updated to read as follows: The Petite Champagne area—shaped like a semi-circle surrounding Grande Champagne on three sides—is also entirely located to the south of the Charente River. The soil of the Petite Champagne region is similar to that of the Grand Champagne region, but with a lower concentration of limestone and chalk. Petite Champagne produces brandies that—while highly desirable—are not considered to match the finesse of

the Grand Champagne cognacs. Petite Champagne has the second highest plantings of all six crus, accounting for nearly 22% of the total production of cognac.

**Page 89:** the description of the Borderies region was updated to read as follows: Borderies, the smallest area in terms of total geographic area, is located to the north of the Charente River. The soil in Borderies is predominantly clay with some chalk, and the area receives more sunshine than the areas to its south. These factors combine to ripen the grapes more quickly than those found in other areas, which in turn causes the resulting brandy to mature faster. Spirits produced from these grapes can nevertheless be quite aromatic and may provide weight and floral notes when added to a blend.

**Page 89:** the description of the Fin Bois region was update to include the following information: The Fins Bois, surrounding the first three areas in a circle, has the most plantings of the six crus and accounts for over 40% of the total grapes produced in the Cognac Region.

**Page 90:** the information regarding the grapes allowed for use in cognac was updated to include the following information: Three other grapes—Jurançon Blanc, Meslier-Saint-François, and Sélect—were previously allowed for use in Cognac (provided that they were planted prior to September 18, 2005). However, these grapes have been disallowed for use after the 2020 harvest.

**Page 91:** the information regarding cognac distillation was revised to include the following: To perform the second-stage distillation, known as the *bonne chauffe*, the brouillis is returned to the boiler for a second heating. The output of this second distillation run will be divided into several portions: the *tête* (the heads), the *coeur* (the heart), the *secondes* (second cuts) and the *queue* (tails). The heart—the *coeur*, which makes up about 40% of the total run—is taken off the still at a strength measuring between 58% and 70% abv (the maximum allowed by law is 72.4% abv). This clear distillate will be matured into cognac.

A portion of the heads (*têtes*) and *secondes* (that portion of the tails that are considered worthy) may be collected and redistilled with either the base wine or the brouillis of a subsequent batch. The specific use of these portions of the distillate can have a significant effect on the character of the final spirit, as discussed below:

- Adding the *secondes* back into the base wine will result in a lighter style of spirit, as this will raise the alcohol level of the base wine significantly. With the higher alcoholic concentration in the base wine, the resulting distillate will be less concentrated with congeners and will produce a lighter-flavored spirit. This method is favored by the Martell Cognac House.
- Adding the *têtes* and *secondes* to the brouillis will result in a deeper, richer spirit. This method is favored by the Rémy Cognac House.
- Dividing the *secondes*—and adding half to the base wine and half to the brouillis—will produce a spirit somewhere between the “light” style of Martell and the richer style of Rémy. The Hennessy Cognac House often uses this method.

**Page 91-92:** the information regarding the aging and maturation of cognac revised to include the following: After distillation is complete, the newly created spirit is put into oak barrels to age, mellow, and develop. Cognac is required to be matured for a minimum of two years in oak, but some versions are aged for much longer. The age of cognac is calculated from April 1 of the year following the vintage. Most cognac is blended after maturation is complete to achieve a particular character and to ensure that a consistent house style is maintained from year to year.

Barrels are typically made of Limousin oak obtained from the nearby forest of Limoges; however, oak from Alliers or Tronçais may also be used. Limousin oak is preferred because of its porosity—which allows for a slow oxidation of the brandy—as well as its low level of harsh tannins. After filling, the barrels are sealed and stored in a well-ventilated aboveground warehouse sometimes known as a *chai*.

Traditionally, these warehouses were located near the Charente River, as this provided a certain ease in shipping. The atmosphere along the river is cool and damp—this helps to provide for a slow, controlled maturation. Newer warehouses are often built on the hilltops surrounding the river; these cellars are much drier and warmer and lead to more rapid and pronounced maturity.

The maritime climate of the Cognac Region combined with the porous nature of the barrels may cause the alcohol in the spirit to evaporate more rapidly than the water and other constituents during barrel aging. Thus, in addition to the typical 3% to 4% annual loss in volume, there is often a corresponding diminution in alcoholic strength, averaging around 2% alcohol by volume per year.

Cognac that has matured for many years in the barrel will eventually reach 40% alcohol by volume, the minimum alcohol percentage allowed for bottling. Often these are old, very prestigious cognacs—40 years of age or older—that are considered to have gained all the possible benefits available from wood aging. Such cognacs may be transferred into *bonbonnes*—large glass containers known elsewhere as *demijohns*—enabling them to maintain their alcohol level and preserving them for many years to come. The *bonbonnes* are often stored in a prized section of the cellar known as the *paradis*.

Inventory and age control of cognac is overseen by the *Bureau National Interprofessionnel du Cognac* (BNIC). The various ages and qualities of cognacs may be identified with stars, initialisms, or other designations on the label. In blended products, the age designation must refer to the youngest component in the blend. Single variety and single vintage/age-dated cognac may be so designated, but these are comparatively rare.

Blanche, or “white cognac,” is not allowed by the AOC regulations. However, a spirit known as *Esprit de Cognac AOC* may be produced from a third distillation run. *Esprit de Cognac* is not allowed to be bottled or sold as a beverage alcohol, but is allowed exclusively for use in the production of sparkling wine (including Champagne).

**Page 92:** Table 6.1 (Cognac Labeling Terms) was updated to read as follows:

COGAC LABELING TERMS	
*** (3 stars/ 3 étoiles), Sélection, VS, Very Special	Minimum of 2 years in oak
Supérieur	Minimum of 3 years in oak
V.S.O.P., Réserve, Vieux, Very Superior Old Pale	Minimum of 4 years in oak
Vieille Réserve, Réserve Rare, Réserve Royale	Minimum of 5 years in oak
Napoléon, Très Vieille Réserve, Héritage	Minimum of 6 years in oak
XO, Extra, Ancestral	Minimum of 10 years in oak
Hors d'Âge (“Beyond Age”)	Minimum of 10 years in oak, although most in this category have been aged for much longer
XXO, Extra Extra Old	Minimum of 14 years in oak
Note: Aging is considered to begin on April 1 of the year following harvest	



**Page 93:** the introduction to the cognac industry was updated to read as follows: The cognac industry is dominated by four major houses: Hennessy, Martell, Rémy Martin, and Courvoisier. These four firms account for nearly 80% of all cognac sales worldwide.

Including the four major houses, there are approximately 280 firms in total producing cognac. Some of the smaller, but still significant firms include Camus, Delamain, Bertrand, Croizet, Pierre Ferrand, Gautier, and Otard. Maison Augier—founded by a wine merchant in 1643—is considered to be the oldest of the cognac houses.

More than 4,000 farmers grow grapes within the Cognac Region. Some farmers produce cognac under their own label; others sell their wine and/or distillate to a distilling cooperative or to one of the larger cognac houses for *élevage* (maturation and finishing) and distribution.

**Page 95:** Table 6.3 (Armagnac Labeling Terms) was updated as follows:

ARMAGNAC LABELING TERMS	
Blanche d’Armagnac	Minimum of 3 months in inert containers/no oak aging required
*** (3 stars/ 3 étoiles), VS	Minimum of 1 year in oak
V.S.O.P.	Minimum of 4 years in oak
XO	Minimum of 10 years in oak
Hors d’Âge (“Beyond Age”)	Minimum of 10 years in oak, although most in this category have been aged for much longer
Vintage	Minimum of 10 years in oak, produced with the grapes of a single-year’s harvest, dated for the year of harvest
XO Premium	Minimum of 20 years in oak
Note: Aging is considered to begin on April 1 of the year following harvest	

**Page 110:** The EU definition of rum was updated to include the following: The term *tradicional* or *traditionelle* may be used in the name of an EU rum product in conjunction with a geographical indication, provided that it has been produced under the following parameters:

- It is produced exclusively from base materials grown in the region of production
- It is distilled at less than 90% abv
- It contains a prescribed level of volatile substances (225 g/hl or more)
- It is unsweetened

**Page 130:** the information on the Amatitán/Lowlands region of tequila production was expanded to include the following information:

- Located in the Valles Region (Región Valles) of north/central Jalisco
- Includes the town of Tequila and the Volcán de Tequila (Tequila Volcano)

**Page 131:** the information on Los Altos/The Highlands region of tequila production was expanded to include the following information:

- Includes the administrative regions of Altos Norte and Altos Sur as well as a portion of Ciénega
- Includes the town of Arandas

**Page 136:** the section on mezcal was updated to read as follows: Mezcal was, until quite recently, a traditional term referring to all agave spirits produced in Mexico. However, in 1994, mezcal was awarded its own set of standards. As of 2016 these standards (defined in the Norma Oficial Mexicana and the mezcal *denominación de origen*) were updated such that the term *mezcal* may only be used to refer to certain specific agave-based beverages produced within certain defined geographic areas. Mezcal derives its name from a Nahuatl Indian word, *mexcalmetl*, which loosely translates as “agave plant.”

The United States Standards of Identity define mezcal as:

- An agave spirit distilled at less than 95 percent alcohol by volume (190° proof)
- Bottled at no less than 40% alcohol by volume (80 proof)

The US standards recognize that “mezcal is an agave spirit that is a distinctive product of Mexico. Mezcal must be made in Mexico, in compliance with the laws and regulations of Mexico governing the manufacture of mezcal for consumption in that country.” Thus, the Mexican standards regulating mezcal, as described in the Norma Oficial Mexicana (NOM), represent the international standard for mezcal.

According to these regulations, mezcal must be:

- An agave distillate produced from 100% agave (a type of mezcal using a minimum of 80% agave—known as *mezcal tipo II* or type II mezcal—has been disallowed as of 2020)
- Produced solely from approved agave varieties grown within the designated area
- Produced and bottled within the designated mezcal-producing area
- Bottled at 35-55% alcohol by volume/70 to 110 proof. (Note: According to US law, mezcal distributed within the United States must be bottled at a minimum of 40% abv/80 proof.)

Mezcal often has a “smokier” or “earthier” aroma than tequila, in part because of the varieties of agave used but also because of the tradition of cooking the piñas in earth-covered pits. Grinding methods vary, and some versions of mezcal use agave fibers (bagazo) in the fermentation and distillation stages of production in order to add character.

**The Mezcal Production Zone:** While the Mexican state of Oaxaca is the traditional center and leading producer of mezcal, the NOM allows for the production of mezcal in several other Mexican states. In addition to Oaxaca, approved production areas include the Mexican states of Guerrero, Durango, San Luis Potosí, Puebla, and Zacatecas. Portions of the states of Tamaulipas and Michoacán, plus the town of San Luis de la Paz (located in the state of Guanajuato) are included in the zone as well.

**Agave Approved for use in Mezcal:** The varieties of agave approved for use in the production of mezcal include the following:

- *Agave espadín (Agave angustifolia)*
- *Agave esperriima*
- *Agave weberi*
- *Agave patatorum*
- *Agave salmiano*

Close to 90% of the agave used in the production of mezcal is *Agave espadín (Agave angustifolia)*. The rules also allow for the use of “other agave species” as long as they are not specified in the use of other

NOM-regulated beverages within the same state. This means that many different agave plants may be used to produce mezcal, resulting in a wide selection of unique and artisanal beverages.

Categories of mezcal: With the update of the official standards in 2016, three categories of mezcal were created. One of the three category names—Mezcal, Mezcal Artesanal, or Mezcal Ancestral—must appear on the product label. These three categories are discussed below:

Mezcal: Products with labels using just the term *Mezcal* have few production requirements regarding the specific procedures for cooking the piñas, milling the cooked product, fermentation, and/or distillation. Such products may be made using a range of production techniques and are allowed to use industrial-style equipment including stainless steel ovens, stainless steel fermentation tanks, and column stills.

Mezcal Artesanal: Mezcal Artesanal has the following requirements:

- The agave must be cooked in pits or cement ovens (no stainless steel allowed)
- The agave may be milled using wooden bats, a stone wheel, or mechanical shredders
- Fermentation must be completed in a vessel made of stone, wood, clay, earth, or animal skins
- Distillation may occur in a pot still made of copper or stainless steel or via a vessel made of clay and/or wood
- Distillation must be fueled using a direct fire
- Fermentation and distillation may include agave fibers (bagazo)

Mezcal Ancestral: Mezcal Ancestral must be produced using traditional methods, to include:

- The agave must be cooked in pits
- The agave must be milled using wooden bats or a stone wheel
- Fermentation must be accomplished in a vessel of stone, wood, clay, earth, or animal skins
- Distillation must occur via a clay and/or wood vessel
- Distillation must be fueled by a direct fire
- Fermentation and distillation may include agave fibers (bagazo)

Classification for mezcal: Mezcal is often bottled unaged, but it may be aged prior to bottling and labeled with a term that describes the aging regimen.

Regulations define six classifications for mezcal:

- White/Joven: young mezcal; no aging required
- Madurado en vidrio/matured in glass: aged in a glass container for 12 months; aging must occur underground or in another cool, dark place; age (in years) must be stated on the label
- Reposado: aged in wooden barrels (any size) for a minimum of 2 months
- Añejo: aged in oak barrels of no more than 200-liter capacity for at least one year; age (in years) must be stated on the label
- Abocado con/flavored mezcal: mezcal that has been infused with an approved flavoring additive such as maguey worms, damiana (a flowering shrub), lime, honey, orange, or mango
- Destilado con/distilled with: mezcal that is distilled with other ingredients—such as chicken or turkey breast, rabbit, mole, plums, or cherries—placed above the still, allowing for the vapors to pass over them; when distilled with meat or poultry, this style of mezcal is often referred to as *mezcal de pechuga*

Mezcal must be labeled with the name of the product category (mezcal, mezcal artesanal, or mezcal ancestral), the species of agave, one of the six classifications, and the name of the state of the Mexican Republic in which it was produced. Mezcal must be bottled in Mexico in bottles of 5-liter capacity or smaller.

Mezcal is traditionally served neat, meant to be taken in small sips and savored. In some locations, a container made from the dried peel of *jicara*—the fruit (gourd) of the *Crescentia cujete* tree, commonly known as *calabash*—is used to serve mezcal. More often, mezcal is served in a snifter, a shallow sipping bowl, or a *veladora* (a small glass loosely resembling a votive candle holder). As would be expected, mezcal cocktails are also increasing in popularity.

**Glossary:** the following terms were added to the glossary:

- **Bonbonne** – *Fr.*, A glass or plastic container that may be used to hold wine or spirits at some point during the maturation process. See also: demijohn.
- **Demijohn** – A glass or plastic container that may be used to hold wine or spirits at some point during the maturation process. See also: bonbonne.
- **Élevage** – *Fr.*, A term used to describe the post-distillation procedures for spirits such as aging, blending, and finishing. Also used to refer to post-fermentation procedures in the production of wine.
- **Pyrolysis** – A series of chemical changes brought about in a compound due to elevated temperatures. Examples include the caramelization of sugar and the charring of wood.