

# ACADEMIA PATRÓN PATRÓN TEXTBOOK





# ACADEMIA PATRÓN TEXTBOOK

THE PERFECT WAY TO ENJOY PATRÓN IS RESPONSIBLY.

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TEQUILA – 40%-50.5% ALC. BY VOL.

#### **ABOUT THIS TEXT**

1st edition 2021

This book represents the efforts of a number of people without whose passion and commitment this project would not have been possible. Special thanks to Emma Janzen for her time, talent and thoroughness; the team at OFFSITE (Maureen, Nick, Dan, Paul, Melissa, Louisa, Jared, and Altamash) for helping us bring this project from concept to reality; Claudia Alarcón for editing and translating the work from English into Spanish; the Academia Patrón team (Stephen, Steph, and Egor) and Antonio Rodriguez for their resourcefulness, perseverance, and dedication to this educational vision; and our leadership present and past, for recognizing the importance of brand education and for investing in our mission.

As with any effort of this scope, we expect that this text will evolve over time. It represents our best understanding of the subject matter at the time of its writing, but we know it will be a living document. We thank you for your support and we welcome your feedback and suggestions, as we strive to provide the best educational resources the industry has to offer.

Thank you -

David



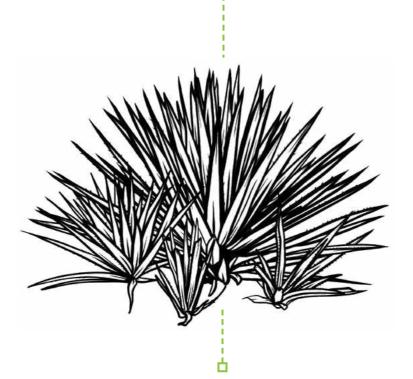
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## TEQUILA ABRIEF HISTORY

Trom its humble origins as a regional variety of mezcal, tequila has grown through the past century into a massive global spirit category, all while protecting its geographic specifcity and assertively re to maintain quality and integrity.

#### **ANCIENT HISTORY:**

PRE-1519

Before the agave plant was used to make the spirit we now call tequila, indigenous people were making a beverage called **PULQUE**.



Spanish conquistadors land in present-day Mexico

Town of Tequila established 1530

THE 16-18TH CENTURY

Tequila's roots stretch deep into Mexico's history. Before the agave plant was used to make the spirit we now call tequila, indigenous people were making a beverage called pulque, a frothy fermented drink made from the agave plant's sap or aguamiel. Archaeologists date the first signs of pulque production in pre-Aztec culture. Conventional wisdom has long held that the Spaniards introduced distillation technology to Mexico when they arrived in 1519 and that's when the first agave distillates emerged, but more recent studies have found evidence of roasting pits and rustic stills that date back to pre-Columbian times (though most concede that the practice of distillation wasn't as prevalent or widespread as fermentation of pulque during that time).

This distilled spirit, originally called vino de mezcal, emerged as a popular alternative to pulque by the mid-seventeenth century, and evidence shows that taxes were enacted on the "mezcal wine" in parts of Mexico during this time. Popularity of mezcal increased through the early-to-mid-1700s, the same time that many producers were establishing distilleries on haciendas in Jalisco.

The Spanish were not enamored with the local spirits, though, and in 1785 King Carlos III put a ban on their production and sales. This forced production underground in favor of wine and imports from Europe. Despite the restrictions, many clandestine operations continued across Mexico, with every region harvesting agave plants that

grew locally and using production techniques and traditions that varied by area, until the ban was lifted in 1795 by Carlos IV (and new subsequent taxes were implemented on production).

### TEQUILA STARTS TO EMERGE AS A CATEGORY: THE 19<sup>TH</sup> CENTURY

In the early 19th century, distilleries started to move away from rural areas and towards the town of Tequila, established in April of 1530. By the mid-1800s, 'vinos de mezcal de Tequila' began to gain recognition within Mexico as a formal industry, and a growing commercial identity started to emerge.

The first commercial distillery license was given to José Maria Guadalupe de Cuervo in 1795, followed by Don Cenobio Sauza's subsequent distillery opening in 1873. Both Sauza and Cuervo claim to have been the first to export the spirit to the United States, but disputes aside, shortly after the spirit's arrival, a new global taste for the liquid began. By 1893, Sauza had won medals for their "mezcal brandy" at the World's Columbian Exposition in Chicago and the 1910 San Antonio International Fair. These accolades started to set tequila apart from other Mexican spirits, highlighting one of the most interesting parts of tequila's history: how tequila, from its very beginning through its rise, fall and resurgence, has always been intrinsically tied to international trade, and specifically, trade with the U.S.

Demand surged in the 1870s especially in the United States, with 80% of tequila exports arriving in the country by 1873. With a nascent

CHICAGO WORLD'S FAIR (PICTURED

FAR RIGHT) — Don Cenobio Sauza made a sensation when his tequila was served at the 1893 Chicago World's Fair. (Source: PD-US)

copper pot stills are a hallmark of artisanal tequila production.



MID-1600s

Vino de mezcal emerges

MID-1700s

Mezcal popularity increases



2112

Spain's **KING CARLOS III** 

bans spirits production and sales for ten years

1795

1785

Ban lifted; First commercial distillery license to José Maria Guadalupe de Cuervo

1873

Second commercial distillery license to Don Cenobio Sauza;
Demand surges—80% of mezcal exports to U.S.

1893

Sauza wins medals for their "mezcal brandy" at the World's Columbian Exposition in Chicago and the 1910 San Antonio International Fair

1910-20

The Mexican Revolution



global market looming and the completion of the Guadalajara–Mexico City Railway in 1888, which allowed for easier transportation within Mexico, the industry started looking for ways to produce more tequila more efficiently. Technological advances, including the use of contemporary copper pot stills in place of wooden or clay stills and steam-powered brick ovens instead of wood-fired conical pit ovens, helped establish tequila as a distinct spirit category separate from other agave distillates. Reports from the time described this emerging category as more chemically pure and cleaner, thanks to the lack of a smoky flavor (a result of using steam-powered ovens).

The Mexican Revolution (1910–1920) was a time of great consolidation of land, which had a negative immediate effect on the tequila industry; in the town of Tequila, the percentage of producers shrunk by 50% and in Jalisco, the number of producers decreased from 87 to 32. During WWII, demand for tequila grew in North America as wine and spirit exports from Europe became scarce. This resulted in widespread adulteration of the spirit to meet demand. At this point, it was time for the government to step in and start regulating and protecting the spirit that was emerging as a national icon.

 $\forall$ 



## TEQUILA LAWS & REGULATIONS

Mexican government established the Norma

ithout rules and regulations, tequila wouldn't be the specifc national treasure it what you need to know about the history of tequila regulation and the organizations that oversee the laws.



1950s

Introduction of the MECHANICAL SHREDDER

The Lisbon Agreement

The norma was amended to require a minimum of only 70% agave sugars

#### STANDARDIZATION OF THE **TEQUILA CATEGORY**

The first attempts to regulate the emerging tequila industry began in earnest in 1949, when the Mexican government established the Norma de Calidad de Tequila in order to help ensure consistent quality in a time of increased manipulation of the spirit. At this time, the rules detailed that tequila had to be made from 100% Weber Blue agave grown in Jalisco. It required alcohol content to be between 45 and 50 percent, and required distilleries to sell tequila in bottles instead of barrels. At this time, there were two classifications: blanco and añejo (aged a minimum of two years).

As demand started to grow, quality began to decline. By 1964 the Norma was amended to require a minimum of only 70% agave sugars, allowing up to 30% of the fermentable sugar in tequila to come from other sources like sugarcane, corn, or other grains. This shift happened in part because of the increased popularity of tequila in the United States, aided in no small part by the spread of smart new cocktails like the Margarita and the Tequila Sunrise. Due to the long growing cycles of the agave plant, production of tequila lags significantly behind sharp increases in demand-lowering the agave quotient in tequila allowed producers to stretch the available agave supply to make more tequila, albeit of a less traditional type.

In 1968, producers were allowed to add flavorings and colorings, In 1968, producers were allowed to add flavorings and colorings, and use agave from outside Jalisco. This amendment also expanded the





classifications to include blanco (or joven), reposado, and añejo (aged a minimum of one year). By 1970, the standard was modified again to state that only 51% of the formulation had to be composed of agave sugars, where the rule stands today. Amendments to the Norma in 1976 established two categories of tequila; 100% de agave tequila, which must use only agave as its source of fermentable sugars, and **tequila**, which allows the addition of non-agave sugars in the recipe. In 2006, the newest class of aged tequilas, extra añejo' was introduced, to identify tequilas aged in wood for 36 months or longer.

Production techniques changed during this time as well. In the 1950s, the mechanical shredder was introduced; in the 1960s some producers began using autoclaves to cook the agave, a method of pressure cooking that cuts the average cooking time from several days to as little as 12 hours. Producers in Japan and Spain started making agave spirits they called "tequila" during this time, and some foreign investors began getting involved in tequila production within Mexico, founding new companies until the country entered a period of debt in 1982.



MARGARITA - Tequila's rise in popularity in America was aided by cocktails like the Margarita and the Tequila Sunrise.

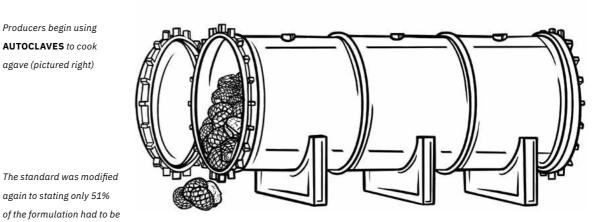
#### THE OFFICIAL **DENOMINATION OF ORIGIN**

In 1974, an official denominación de origen, or "Denomination of Origin" (DO), was established, making Mexico the official home of tequila.

Established by countries to protect indigenous products and prevent unfair competition, DO is the term used to identify a product that orig100% WEBER BLUE AGAVE -Growing in the highlands of Jalisco.



1960s Producers begin using **AUTOCLAVES** to cook agave (pictured right) 1970 The standard was modified



1974 Denomination of Origin (DO) established

again to stating only 51%

composed of agave sugars

inates within, and is produced exclusively by, a certain region of a country. The term is fluid depending on organization and country. The World Trade Organization uses the title Geographical Indications, defined as "place names (in some countries also words associated with a place) used to identify products that come from these places and have these characteristics," citing Champagne, Roquefort and Tequila as prime examples.

Categories established: 100% de Agave

Tequila, and Tequila

Other terms include (but are not limited to):

» Appellation of Origin (AO)

» Protected Geographical Indications (PGI)

» Protected Designation of Origin (PDO)

1977 Tamaulipas added to official DO

1982

Mexico enters period of debt

indications have expanded all over the world, and today there are countless examples relating to crops, food, food products, and beverages of many types. These regulated areas are chosen on the basis of two factors: geographical features, including weather, altitude, longitude, and soil characteristics; and human aspects, which cover the use of traditional production techniques developed and shared from generation to generation. Having a DO for a product creates a direct connection between the quality and characteristics of the product and its place and prevents the appellation from becoming a generic name.

Once limited to sites of European production, these geographical

1994 CRT is established: 1994 U.S. and Canada recognize tequila as a DO Taking its name from the town of Tequila—the center of historic tequila production—tequila was the first internationally recognized Denomination of Origin for a region outside of Europe. The DO prescribes where tequila can be made, what it can be made from, where its raw material must be grown, and many other aspects of its production and marketing. The DO for tequila does not apply to the many spirit producers making distillates from other agave species and agave grown in other regions, which go by other names and in some cases have their own DO.



Tequila's DO originally specified that the spirit could only be made in the following municipalities (akin to a US county) in the following states:

» Régules

» Los Reyes

» Sahuayo

» Tancítaro

» Tinguindín

» Tocumbo

» Villa Mar » Vista Hermosa

» Yurécuaro

» Zamora

» Zináparo

» Tangamandapio

» Tangancicuaro » Tanhuato

#### 30 IN MUNICIPALITIES MICHOACÁN

- » Briseñas de Matamoro
- » Chavinda
- » Chilchota
- » Churintzio
- » Cotija
- » Ecuandureo
- » Jacona
- » Jiquilpan
- » Maravatío » Marcos Castellanos
- » Nuevo Parangaricutiro
- » Numarán
- » Pajacuarán
- » Peribán
- » La Piedad

#### **EIGHT IN NAYARIT**

- » Ahuacatlan
- » Amatlan de Cañas
- » Ixtlan del Rio
- » Jala
- » Jalisco
- » San Pedro de Lagunillas
- » Santa Maria del Oro
- » Tepic

#### TEQUILA-PRODUCING REGIONS -

Tequila producers can use Weber Blue agave from five different states of Mexico. All of Jalisco and the shaded areas of the other four states are in the DO.

#### **SEVEN IN GUANAJUATO**

» Venustiano Carranza

- » Abasolo
- » Cd. Manuel Doblado
- » Cueramaro
- » Huanimaro
- » Penjamo
- » Purisima del Rincon
- » Romita

EU recognizes tequila as DO

#### **125 IN JALISCO**

» i.e., the entire state

Not part of the original 1974 declaration, Tamaulipas was added in 1977 after proving their production traditions aligned with those from Jalisco. Eleven municipalities in Tamaulipas are now allowed to call their tequila "tequila."

Classification established:

Extra Añejo Tequila

#### 11 MUNICIPALITIES IN TAMAULIPAS

» Aldama » Mante

» Altamira » Nuevo Morelos

» Antiguo Morelos » Ocampo » Gomez Farias » Tula

» Gonzalez » Xicotencatl

» Llera

Brazil recognizes tequila as DO

amber (chiapas)

The Denomination of Origin for tequila is protected in key international markets. In 1958, The Lisbon Agreement established the framework for international acceptance of protected terms, and all 24 countries involved in the agreement acknowledged the DO for tequila when it was established in 1974.

In addition to legally binding consortiums, there are also various organizations in the non-governmental sector that uphold multilateral agreements and advocate on behalf of regional organizations, such as the Organization for an International Geographical Indications Network (OriGIn), a Swiss-based NGO that represents over 2 million producers in 40 countries. The World Trade Organization (WTO) Agreement on Aspects of Intellectual Property Rights Trade-Related (TRIPS) offers the same protection. The U.S. and Canada both recognized tequila as a DO in 1994 when the NAFTA agreement was enacted, and in exchange, Mexico recognized American Bourbon. The European Union (EU) accepted this later in 1997 and registered the spirit as a formal DO in 2019. Brazil finally recognized the DO in February 2019 after first filing for protection in 2008. The CRT cites that today tequila is defined, registered, and protected in 50 countries.

13

#### mexican denominations of origin.

1974 tequila vanilla (papantla) 2002 sotol 2009 1994 mezcal mango ataulfo (chiapas) rice (morelos) 2012 olinala charanda cacao (grijalva) 2016 chile yahualica 1997 talavera chile habanero 2018 coffee (veracruz) 2000 bacanora

#### THE CRT IS ESTABLISHED

In 1994, the regulation of tequila was transferred from Mexico's Department of Commerce to a newly formed non-governmental body called the CRT (Consejo Regulador del Tequila, or the Tequila Regulatory Council). This council became responsible for establishing, verifying, and certifying compliance with the normas that are created by the Mexican government to regulate the tequila industry, officially called Norma Oficial Mexicana, or NOM for short.

The CRT works to guarantee the authenticity of tequila wherever in the world it is sold, and their purview includes tequila producers, agave growers, bottlers, marketers, and the Mexican government. The standard set in 1994 was similar to ones previously dictated, requiring a minimum of 51% agave sugar and introducing definitions and minimum aging requirements for blanco, reposado, and añejo tequila classifications.



- » Every agave plant must be registered with the CRT at time of planting and at harvest
- » Distilleries must test and record chemical analysis of the product at various stages
- » Each barrel of aging tequila must be sealed by a CRT official (and can only be removed the same way)



agave and tequila





CÁMARA NACIONAL DE LA INDUSTRIA TEQUILERA (CNIT) functions as the tequila industry's Chamber of Commerce.

#### CONSEJO REGULADOR DEL TEOUILA

(CRT) - Headquartered in Guadalajara, the CRT is a governing body formed to regulate and protect tequila production

Restrictions on other production methods were not established at this time, so choices like how to crush and cook agave and how to distill tequila were left to each company's discretion. The council's new role as industry watchdog set the stage for a new era of profesnom identif sonfalis and sophistication in the manufacture of tequila. The CRT

> was formed at the urging of an earlier organization, the CNIT-Cámara Nacional de la Industria Tequilera—which functions as the tequila indus-

t h ery's Chambern of Commercea I

product made in Mexico, Mexicana" del Tequila identification number is

a way to trace all tequilas to the distiller responsible for their production. Known as NOM numbers, these four-digit codes preceded by the letters NOM are assigned by the CRT and appear on all tequila bottles—both 100% de agave and tequila.

Created to ensure that a tequila is an authentic

Registered in the system today are about 2,270 brands, responsible for 4,313 different expressions of tequila. Many distilleries produce more than one brand.

only make Patroin tequilas at ageavertequillass complosed 61/1% of botald produc-Patrón tequilas are made at ntion obtequiear distillery.

#### **MODERN GROWTH**

Thanks to the more rigorous quality standards imposed and enforced by the CRT, the category's reputation started to improve again in the mid-'90s and early 2000s. Annual production tripled between 1995 (the first year of data from the CRT) and 2020, and the market for high-end tequilas grew larger than the demand for mixto tequilas (at least since the CRT started tracking that information). And while in 1995 there were only a handful of 100% de agave tequilas



Check out our interactive tool, updated daily, to find out which NOMs make which tequilas at: knowyournom.com

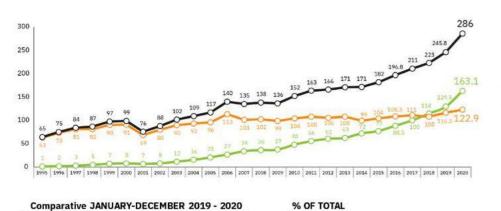
In 2012, NOM-006-SCFI-2012 was published, updating regulations. This NOM states that:

- » Blanco tequila may not have additives
- » Extra añejo tequila is allowed to have an age statement on
- » Bulk tequila can only be made by authorized producers, and distribution of bulk tequila through vending machines is prohibited
- » Agave must be registered during the calendar year of its planting, and updated every year

There is, however, another section of the Norma that allows for "edulcorantes, colorantes, aromatizantes y/o saborizantes permitidos por la Secretaría de Salud" (sweeteners, coloring, aromas and flavors allowed by the Secretary of Health). Some producers have interpreted this apparent loophole to mean that these additives are in fact allowed in blanco tequilas. At Patrón, we do not use any additives in any of our tequilas.

Today, tequila is a global phenomenon. As of 2020, the CRT reported 1,407,000 tons of agave were used to make 374 million liters of teguila for nearly 1,500 different brands.

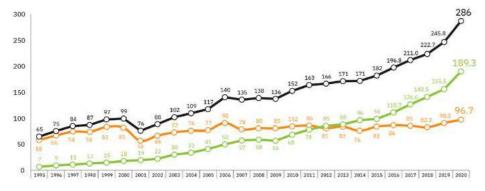
#### the growth of the tequila category.



100%

#### EXPORTS BY CATEGORY: TEQUILA AND TEQUILA 100% AGAVE

Millions of liters at 40% alcohol by volume (80 proof)



#### **EXPORTS BY FORM**

Millions of liters at 40% alcohol by volume (80 proof)

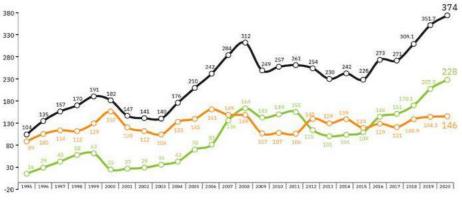


16.3%

TOTAL

#### TOTAL PRODUCTION: TEQUILA AND TEQUILA 100% AGAVE

Millions of litres at 40% alcohol by volume (80 proof)



 Comparative JANUARY-DECEMBER 2019 - 2020
 % OF TOTAL

 TEQUILA 100% AGAVE
 10.0%
 61%

 TEQUILA
 1.0%
 39%

 TOTAL
 6.3%
 100%



## AGAVE GROWTH & HARVESTING

hile there are many types of agave, only one variety

— Weber Blue Agave — can be used to make tequila.

Understanding the plant, how and where it grows, and how it is harvested is essential in understanding tequila production.

#### THE FUNDAMENTALS

Despite its spiky appearance, it's worth remembering that agave plants are not cacti. The genus Agave is a collection of plants belonging to the Asparagaceae family that grow all over the world but are native to North America, with over 200 species (and untold numbers of subspecies, varieties and hybrids) distributed throughout the continent. The plants are most often found in the arid and semi-arid regions of the U.S. and Mexico to the north, on Caribbean islands, and all the way south to Colombia and Venezuela. Agaves were present in China, India and Java for hundreds of years before being identified in the Mediterranean and Europe as early as the 1500s; some suspect Christopher Columbus brought some back to Europe from his first voyage. Now they grow throughout Europe, Asia, Africa, and beyond-and several of these locations have dabbled in making their own agave distillates- but about 75% of the world's varieties are endemic to Mexico, making them one of the country's most important and iconic resources.

#### THE AGAVE IN MEXICAN CULTURE

Tequila wouldn't exist without the noble agave (the word agave comes from the Greek word "agavos", which means notable or admirable) and the significance of the plant in Mexican culture is impossible to overstate. For thousands of years, agaves were vital to the survival of ancient Mesoamerican people, serving the dual purpose of practical tool and food source: fibers were used to make rope, cloth, and netting; thorns were used as sewing needles and

in medicinal and ceremonial applications; and flowers, leaves, and stalks served as important nutrient sources. Even the worms that fed on the leaves of the plant were captured and consumed. For this reason, the plant has long symbolized health and abundance in Mexican culture.

Because the plant was so fully woven into the fabric of everyday life, the agave's life-giving and sustaining properties elevated it into the mythological and spiritual realm of early Mexican societies. This is best represented by Mayáhuel, the Aztec goddess of fertility and nourishment, who is generally depicted personified as or emerging from an agave plant. The agave's spiritual significance was also clear through the use of its byproducts; the sweet sap of the plant was fermented into pulque, an alcoholic beverage that became a key element in celebrations, diplomacy and religious rituals. Mezcal, the first distilled spirit made from agave, held a similar place in Mexican culture, figuring prominently into celebrations of life's important moments and rites of passage such as births, baptisms, weddings, and funerals.

#### **AGAVE TEQUILANA**

Before tequila became the defined and regulated spirit it is today, producers made mezcal de tequila from many varieties of wild agave (23 species of agave, including the most common *Agave angustifolia*, *Agave schidigera* and *Agave maximiliana*, grow within Jalisco). Growers were cultivating plants as early as the mid-1700s, when producers like José Cuervo began establishing formal distilleries on haciendas in Jalisco. It wasn't until the late nineteenth century that Weber Blue agave, a variety named after German botanist Frederic Albert Constantin Weber, became the dominant variety used for making tequila.

Farmers and distillers favored Weber Blue agave for many reasons:

- » The plant had a better resistance to disease than other kinds of agave
- It took fewer years to reach maturity than most and had a high sugar content, making it ideal for producing spirits
- Weber Blue also has an unusually high production rate of hijuelos rhizomal offshoots that are used to propagate new agave plants, meaning reproduction could happen more frequently

Remember that by 1949, the Norma de Calidad de Tequila established the Weber blue agave as the main variety utilized in the production of tequila but still allowed the use of other varieties, and in 1976 the rule was amended to include **two categories for tequila: 100% de agave**—in which all of the fermentable sugars used in formulation must come from the Weber Blue agave plant—and simply **tequila**, which allows a percentage of sugar from other sources to be included.



MAYÁHUEL — The goddess of fertility, as depicted in the Aztec Codex Magliabechiano from the 16th century.



**HIJUELOS** — Rhizomal offshoots commonly used to propagate agave plants.



**MANITAS** — (Umbel) flowering begins with an inflorescence of short flower stalks which spread from a common point (like umbrella ribs).



**CAYACAS** —(Flower buds) grow at the ends of the manitas after the quiote reaches full height.



**FLORA** — (Flower) fully opened flowers open from the cayacas, attracting local pollinators and allowing the agave the chance to reproduce sexually



PLATANITOS — (Capsule) the flora eventually dry into a seed capsule. Some capsules have wings allowing them to be carried by the wind, but most fall around the plant.

Today, the plants used in tequila production must be cultivated from within the Denomination of Origin of Tequila, must be registered with the CRT within a year of their planting, and must conform with the NOM from harvest to arrival to the tequila distillery.

#### **AGAVE ANATOMY**

Agave tequilana has a set of characteristics that are unique to the variety. The color, as is indicated in the name, is a light grey-blue. The plants grow best in direct sunlight and can survive in a multitude of environmental circumstances, from subtropical to semi-arid and sub-humid conditions.

Plants grow approximately 47-70 inches (120-180 cm) high and the leaves extend 35-47 inches (90-120 cm) long, growing in the shape of a spear head and composed of very solid fibers that make them rigid and strong. The leaves grow in a way that fashions a rosetta, allowing the lower leaves to receive sunlight.

Each agave typically grows around 130 leaves in a 7-year growth period, some of which can reach up to 5 feet long. When leaves die, they descend to the ground, covering the topsoil to lock humidity in the soil.

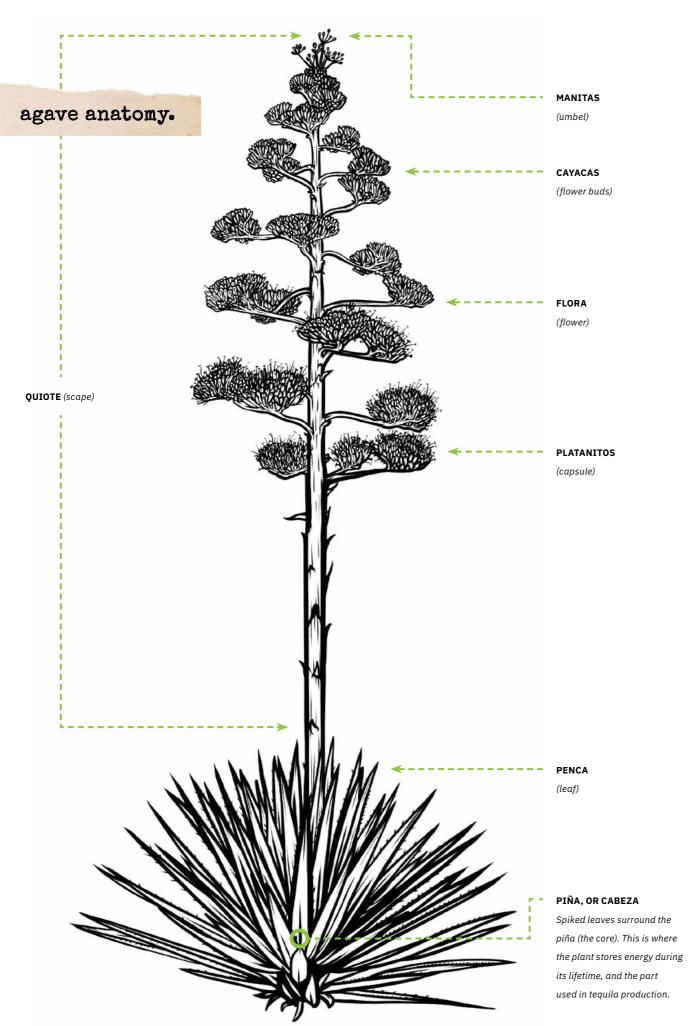
The central core of the plant, known as  $pi\tilde{n}a$ ) because it resembles a pineapple, is circular in shape and thick, with a height of 11-19 inches (30 to 50 cm). Its average weight is approximately 66 pounds (30 kg) after 6 years of growth.

The total biomass of an agave is approximately 50% piña and 50% leaves, and we can roughly divide the content of agave plants into three elements based on its weight: water: 70%, fiber: 5%, and carbohydrates (inulin): 25%.

The piña is the inulin reserve of the agave (inulin is a naturally occurring polysaccharide used by some plants as a way of storing energy), which facilitates the production of the *quiote*, the flowering stalk, when the plant is mature.

#### REPRODUCTION

Agave plants reproduce both sexually and asexually through three different methods. Sexual reproduction is by seeds produced in the quiote, which grows out of the center of some plants like a very large, thick asparagus stalk, which produces bulbils and flowers. Bulbils are small offshoots, produced on the branches of the quiote, that require a long period of time to grow if sown for the purpose of starting a new agave plant. Agaves reproduce sexually through flowering and pollination, as bees, hummingbirds, and bats transfer pollen from flower to flower, producing seeds that disperse. The germination percentage of seeds is low and the development of new plants is very slow, so,



like is the case with bulbils, this method is not often used in tequila production. Each plant is monocarpic, that is, it flowers once during its lifetime (at about 10 years old), then withers and dies.

Weber Blue agaves also reproduce asexually through baby plants called *hijuelos*, offshoots that grow around the base of the mother plant. These offshoots start growing organically at ground level, joined to the mother plant through a rhizome-commonly known as chirrion-when the plant reaches about 3 to 6 years of age. *Agaveros* harvest the "pups" when they are strong enough to be transplanted, which is typically after a year of growth. The use of hijuelos to replant in a new field is the primary way to reproduce agave for tequila production.

For many years, it was assumed that reproduction of Weber Blue agave via hijuelos produced an exact clone of the mother plant, which contributed to monoculture of large crops that are genetically identical to each other. Recent scientific research shows that the Weber Blue agave has a mechanism that generates a change in the genetic profile of the new plants with regards to the mother plant in the three ways of reproduction. While plants that are grown from pollinated seeds may have the most genetic diversity from their mother plant, there is still some genetic diversity between plants grown from hijuelos (most common) and bulbils, and their mother plant. This emerging research is promising for the future of diversity and sustainability of agave agriculture.

#### WHERE WEBER BLUE AGAVES GROW

Within Jalisco, agave plants are typically grown in either the Highlands (known as Los Altos) or the so-called Lowlands, the Tequila Valley. Each region has its own set of particular characteristics that influence the nature of the agave, and subsequently the flavor of a finished tequila.

#### The Highlands of Jalisco, or Los Altos

The first agave hijuelos transplanted to the highlands arrived in Arandas in 1896 from the Tequila Valley, brought by Pantaleón Orozco. From the port of San Blas on the Pacific coast, Orozco's journey to the Highlands took him through the town of Tequila, where he loaded his mules with agave hijuelos. This marked the beginning of the tequila industry in the highlands.

Now, the soil, topography, and climate of the Highlands are recognized as being ideal for producing Weber Blue agave. The distinctive red soil creates a micro-terroir that is rich in iron oxide and has a high level of acidity. The mix of clay and silt encourages healthy plant growth. Elevations range from 6,000 to 7,300 feet above sea level, with cooler temperatures than the lowlands. Tequila distilleries in the Highlands include Patrón, Siete Leguas, La Alteña, El Pandillo, and Cazadores. Flavor notes for tequilas produced in this region include: round, sweet, floral, citrusy and fruity.

#### The Valley Region or Valleys of Jalisco

The town of Tequila marks the center of the Tequila Valley, highlighting the area's long and storied history of agave growing and tequila production. Fewer agaves are grown in the valley region, where the earth is black volcanic soil (a result of a volcano that erupted 200,000 years ago) and the elevation ranges from 2,600 to 4,000 feet above sea level. Its hotter average temperatures mean agave plants grow faster, but they also have lower sugar content, about 25% less than



terroir.	valleys.	highlands.
TEMPERATURES	Warm (20-25 °C / 68 - 77 °F)	Temperate (15-20 °C / 59 - 68 °F)
ALTITUDE	3,900 - 4,600 ft above sea level	5,200 - 6,900 ft above sea level
SOIL	Grey-ochre with some iron, good nutrient concentration, and higher pH	Reddish with high nutrient content, iron, and slightly low pH
PLANTING	2,500 - 2,800 plants per Hectare	2,800 - 3,000 plants per Hectare
CULTURE	Harvested younger (5 years on average)	Harvested older (6 years on average)



those grown in the highlands. Tequila distilleries in the valley region include Cuervo, Sauza, and Herradura. The flavor profile of valley tequilas can be characterized as being peppery, herbaceous, earthy, mineral, dry, and assertive.

#### **PLANTING, SELECTION & HARVESTING**

The Weber Blue agave is a variety that no longer grows wild, since its evolution is very much linked to human intervention. Generally speaking, plants can grow in flat areas or valleys or hills with smooth slopes or slides, and they are very adaptable to their surrounding circumstances. According to the CRT, farmers plant about 2,500 to 2,800 plants per hectare (a hectare is about 2.5 acres, or just under two American football fields) in the valleys, and in the highlands, farmers plant about 2,800 to 3,000 plants per hectare.

The Highlands have become the preferred area to cultivate Weber Blue agave, where plants tend to take an extra year or so to mature six years instead of the five it takes in the Tequila Valley. For planting agave, the soil needs the correct impermeability with a pH toward acidity. Sandy or muddy soils are not good for agave, neither are soils that are too thin or swampy. Agave plants do not require irrigation, as they obtain enough water from the soil humidity and natural rainfall; irrigating agave would cause an increase in water content rather than concentration of sugars, which is not ideal for tequila

JIMADOR - A farm worker skilled in harvesting and trimming the pencas to expose the piña of agave plants.



production. Agave plants also need a good amount of sun for photosynthesis to take place, at least 265-300 days a year.

Weber Blue agaves reach maturity between five and seven years of age. The plants are carefully monitored during this time to ensure they're healthy and at their peak of ripeness when harvested. Experienced farmers will know when the time is right for harvest by looking for certain signs: the color at the base of the plant will start to look more greenish-yellow, and the leaves that grow out of the center of the plant will stop growing longer than neighboring leaves and instead the plant will begin shifting its energy into plumping up

> its core instead of making new leaves. The leaves will start to look heavier. Imagine slowly bringing your arms from straight above your head to a lower and lower position as they grow tired. Not quite droopy, because they're still straight, but just not as vertical. As the leaves begin to open up, the tips will also get a little darker and wrinkled.

These are some of the many signs that skilled *jimadores*, the Mexican name for agave harvesters, look for to determine when the plant is ripe and ready for harvest.

Once the plants are ripe enough, the jimadores begin harvesting. The craft of the *jimador* is a traditional, deeply respected skill in Mexico, passed down through the generations from father to son, and skilled jimadores can dislodge and trim a 100 lb. agave plant in mere minutes.

First, the jimador will remove the agave's long spiky leaves, known as pencas, using a special tool called a coa. These leaves are left behind in the field to be tilled into the soil. Then, the remaining green parts of the cut leaves will be trimmed to reveal the piña. The degree of trimming varies per the preference of every tequila distillery. For Patrón, the pencas are shaved more closely to the piña than is the more common practice in the industry, such that the green parts should measure no more than 1/3 inch or 1 cm in length. Our belief is that this practice removes most of the waxes and chlorophyll that can result in bitter notes in the final distillate.

To make sure the harvested plants are suitable for use at Patrón, the jimador will test the sugar content of each piña. Only the plants with the highest sugar content are used to make Patrón tequila, with the ideal ART levels averaging around 25 percent. Sometimes piñas also have red spots on the white flesh of the plant- these are a signal of the plant's ripeness, but Patrón requires that no more than 20 red spots are present on the plant. The Patrón-perfect piñas are then loaded up for delivery to the distillery for production.

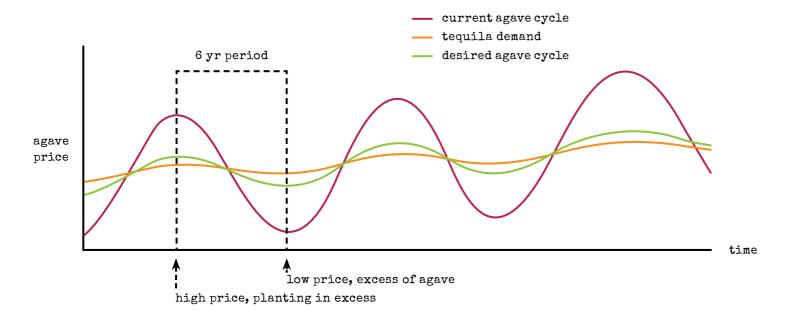
#### brix & art.

The industry measures the BRIX and the ARTs in the Agave as a way to determine how much sugar a plant has and how much tequila could be produced from it. BRIX is the unit of measurement for the solids that are dissolved in a liquid, not necessarily sugars. ART (Azucares Reductores Totales, or Total Reductive Sugars) is the most adequate measure to determine how much tequila could be produced. In Weber Blue agave, a good approach to measure the ART is to determine the BRIX with an optic refractometer and then subtract 20% to determine the approximate ARTs.

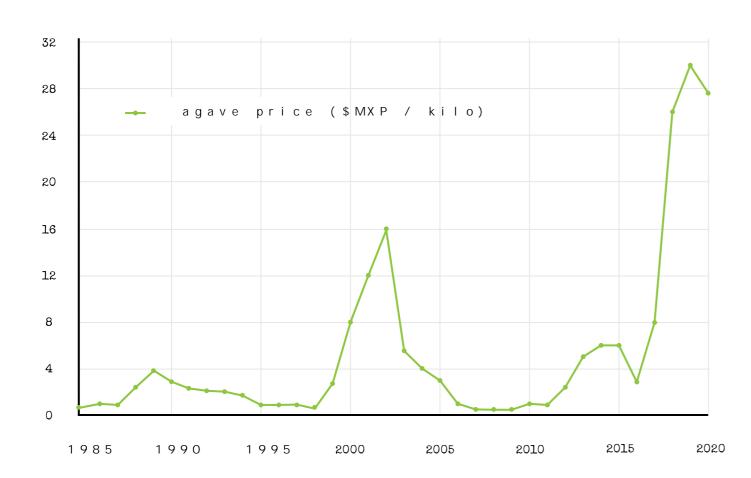


Patrón, the piñas are trimmed more closely to the heart than is the industry standard.

#### agave cycles...



#### ... and markets.



## AGAVE FUTURES: ADDRESSING SHORTAGES, AVAILABILITY & SUSTAINABILITY

One of the tequila industry's main challenges is ensuring a steady crop of agave for use in production. Throughout history, farmers have endured alternating periods of abundance and shortage; this happens often due to a lack of information about market demand, paired with the long-life cycle of the plant itself. Because agave plants take years to mature, growers often plant when the price is high, without realizing that the real price they will obtain is 6 to 7 years later when their agave is ready to be harvested. If the price is high when planting, growers will over-plant, expecting to command that high price. Instead, the abundance of agave will drive prices down, kickstarting an opposite loop in the cycle of under-planting for the next crop.

This cycle of abundance and shortage, which many say happens about every 10 to 15 years, creates imbalances in the agave supply/demand that at times seems insurmountable when every year the industry requires millions of plants for tequila production. To create a more balanced system, agave growers should consider certain factors with long-term growth in mind:

- >> What will the demand be in 6 years? Will the popularity of tequila continue to rise, remain the same, or decrease?
- What are the possible losses, either by natural disasters, the requirements of other industries (i.e., agave nectar), or diseases?
- » How productive will the industry be?
- » Will the price of agave be attractive to businesses in 6 years?

With more data and more transparency, the industry can insulate itself against swings in supply and demand, and stabilize pricing. Currently, the agave industry, through the Tequila Regulatory Council and the Tequila Chamber is in the process of:

- » Gathering information and making forecasts.
- » Creating models of supply-demand.
- » Following the other uses of agave (syrup, inulin, energy, etc).
- » Determining agave needs for each year and making that information public to aid growers in their decision making. <a>⊠</a>

## patrón agave farming partner.

Most agave production for Patrón is c farming families who grow agave in the Altos region or in nearby areas that produce agaves with similar characteristics. These expert growers have generations of experience and a long history with the Patrón brand. Half of the m—the Padillas, and the Hernandezes—havbegan production at the Hacienda dist

As part of their agreement with Patrinumber of plants each year and Patron price for the plants when they're harvested. The contracts are typically drafted year by year based on business forecasts. By guaranteeing a market and price fiensuring that their partner farmers have income stability and are able to continue to plant and plan into the future, which means that in the event there's more agave than demand, the farmers

FEITH ASCENCIA FAMILY agave, Patró

Fernando Plascencia at La Casona.

The Plascencia family has worked in the tequila industry for 40+ years - including

are still guaranteed a proftable pricweth Poderós for paedas 17th. of their con For Patrón, these long-term contracts ensure a steady supp quality agave for years to come.



## OTHER NOTABLE MEXICAN DISTILLATES

equila is just one of many kinds of agave spirit produced in Mexico. Get to know other common types to better understand tequila's place within the wide world of Mexican spirits.

#### **MEZCAL**

The word mezcal, used to describe spirits distilled from agave, derives from an Aztec word meaning "cooked agave." Mezcal is made across Mexico from up to 50 different species of agave (and countless subvarieties), making it a broad, nebulous spirit category that includes countless hyper-regional style variations. Remember that tequila is a regional type of mezcal, made from just the one kind of agave, Weber Blue agave.

Mezcal and tequila differ in certain production methods. Generally speaking, mezcal has earned a reputation as a smoky agave spirit thanks to the traditional production techniques of cooking agave piñas in stone-lined pits in the earth (this is the element that imparts a smoky quality). Mezcal is also often fermented in wooden tanks, stone-lined earthen tanks, or even animal hides, and distilled over direct fire in pot stills made from clay, wood, or copper.

The production of such spirits was, until recently, done on a very small scale and made for mostly local consumption, but the twenty-first century has seen widespread change come to the mezcal trade as interest in the ancestral and traditional version of this spirit category has grown in markets like the U.S., Europe, and even in major cities in Mexico, where such spirits were once considered unfashionable. Now, the variety of producers making the spirit ranges from small rural outfits using rudimentary techniques to much larger facilities using more modern technologies.

Mezcal received an official DO from the Mexican government in 1994, which stated that agave distillates can only be called mezcal

04 ~ other notable mexican distillates academia patrón.



if made within certain states. Today, nine states are allowed to call their mezcal "Mezcal": Oaxaca, Durango, Zacatecas, San Luis Potosí, Guanajuato, Guerrero, Tamaulipas, Michoacán, and Puebla. Aguascalientes, Estado de Mexico and Morelos petitioned for inclusion in the DO in 2019 but have been unsuccessful to date.

In 1997, the Consejo Regulador del Mezcal was formed to oversee and enforce rules and regulations surrounding production (similar to tequila's CRT). Like tequila, spirits may not be considered certified mezcal unless they are produced in accordance with mezcal's Norma, and their producers must be registered with the CRM.

In 2017 NOM 70 was passed into law, delineating three categories and six different classes of mezcal.

#### THE THREE CATEGORIES OF MEZCAL

#### Mezcal

The generic category for mezcal allows for a variety of production techniques, including highly industrialized, large-scale productions. The agave hearts can be cooked in stone pits, above-ground masonry ovens or autoclaves; crushed by tahona, mill, shredder, continuous mill or diffuser; fermented in wood, concrete or stainless steel tanks; and distilled in a continuous still, copper still or stainless steel column stills.

#### Mezcal Artesanal

Landing between the most industrial and most traditional, artisanal mezcal might be the most common kind of mezcal production in the industry today (representing 92% of the category in 2018). This category allows for agave hearts to be cooked in underground stone pit or above-ground masonry oven; crushed by hand, tahona, mills, or mechanical shredder; fermented in clay, earth, wood, stone, or

stone PIT — Mezcal has earned a reputation as a smoky agave spirit thanks to the traditional production technique of cooking agave piñas in stone-lined, underground pits, where the agave comes in direct contact with smoke from hot coals.



#### CONSEJO REGULADOR DEL MEZCAL

(CRM), formed in 1997, to oversee and enforce rules and regulations surrounding mezcal production.

animal skin; distillation must be over direct fire in copper pot stills, clay pot stills, or stainless steel. Agave fibers may be included.

#### Mezcal Ancestral

The most traditional production methods are required to be called ancestral. For a mezcal to qualify under this category, it must be made in compliance with at least these four stipulations, which are all considered to be traditional production methods that preserve mezcal's integrity in accordance with the most recent NORMA. The agave hearts must be roasted in pit ovens only; crushed by hand, tahona, Chilean or Egyptian mill; fermented in stone, earth, wood, clay or animal skins; distillation must happen in clay pots over direct fire and may include agave fibers. This represents a very small percentage of the overall industry.

#### THE SIX CLASSES OF MEZCAL

#### Blanco or Joven

Unaged mezcal

#### Madurado en vidrio

Glass-rested mezcal, aged more than 12 months in a place away from variations in light, humidity, and temperature, or underground.

#### Reposado

Mezcal aged between 2 and 12 months.

#### Añejo

Mezcal aged more than 12 months.

#### Abocado con

Mezcal producers may include ingredients to add flavor after distillation, such as the herb damiana, orange, mango, gusano de maguey (the agave worm), and others.

#### Destilado con

This class covers the mezcal commonly called *pechuga*, which includes ingredients added during the distillation process to add flavor to the final product. Meats like chicken, turkey, rabbit and deer are common in different regions; in others, fruits and spices are used for seasonal releases (like mole).

Today, Oaxaca is still the most prominent producer of mezcal, making 92% of the country's commercial mezcal as of 2018. Most mezcal is still made with the espadín variety (over 75% as of 2018), an agave that comes from the *Agave angustifolia* family. For this reason, most of the literature you'll find today on mezcal is also about production traditions and trends taking place within Oaxaca, though that's changing as producers are starting to commercialize mezcal from other states and people are increasingly turning their attention to the quirks and characteristics of these mezcales as well.



**GUSANO DE MAGUEY —** The agave worm is a pest that can infect an agave plant, and can also be found at the bottom of some bottles of mezcal or tequila.



**PECHUGA** — Limited production mezcales historically produced for a celebration, it may incorporate seasonal fruits, spices, and even meat during the distillation process.

oto credit: Nick Kor

from agave, desert succulents and other

## ABOUT PATRÓN

AGAVE-BASED DISTILLATES

are a few of the more prominent ones:

bacanora.

A DO-protected spirit (DO established in 2000) made with Agave angustifolia in the state of Sonora. Production methods

comiteco.

Produced in the region around the city of Chiapas, Comiteco is a spirit distilled from aguamiel (or agave sap). The Secretary of Economy in Chiapas is in the process of requesting a DO. Comiteco differs from other agave distillates that use the cooked piña as the raw material for production.

raicilla.

Approved for the establishment of a DO in 2019 fve varieties rhodacantina, vangustifolia, maximiliana, inaequidens, valenciana) within 16 municipalities in the (Tomatlán, Cabo Corrientes, Puerto Vallarta, Mascota, Talpa de Allende, Atenguillo, Mixtl Cuautla, Tenamaxtlán, Tecolotlán, Chiquilistl Nayarit: Banderas Bay). Production methods are

tuxca.

An agave spirit without a DO made in the Tuxc Production methods are similar to mezcal.

NON-AGAVE DISTILLATES

charanda.

A DO-protected (2003) sugarcane distillate native to 16 municipalities in the state of Michoacán. The cane grows in in many parts of the region, earning its name the language of the Tarascan people indigenous soil."

sotol.

Distilled from the Dasylirion plant in the states of Chihuahua, Coahuila and Durango. Production can be similar to m Dasylirion plant is not an agave, it cannot be called an agave spirit.



.Ve

equila has been around for generations, but the launch of

Patrón in 1989 marked a major turning

Agave ultra-premium tequila category,

continues to lead to this day. Our commitment to quality and

tradition have been part of Patrón since

of our heritage and we work hard to preserve it.

#### THE PATRÓN VISION

1989

John Paul Dejoria and
Martin Crowley join forces
with the goal of making the
world's highest-quality,
ultra-premium tequila

In the 1970s, tequila producers flooded the market with cheaply made low-quality mixtos, leading to negative consumer perceptions of the category. Many tequila producers during this time had lost touch with a fundamental aspect of tequila's history: the high quality and unique flavor that initially distinguished it from other regional agave spirits.

This set a perfect stage for the birth of Patrón.

2003 Hacienda Patrón is built

In 1989, two visionary southern California businessmen, John Paul Dejoria and Martin Crowley, had a goal: to make the highest-quality ultra-premium tequila in the world. They had a hunch that consumers were ready for an ultra-premium luxury tequila, a spirits category which at the time didn't exist. According to Patrón lore, John Paul and Martin decided to produce 1,000 cases to prove the concept. John Paul said to Martin, "If we can't sell it, we'll drink it and give it away as Christmas gifts."

OO5 Casa Patrón is purchased from El Viejito

Martin traveled to the heart of agave-growing country—the highlands of Jalisco—where he met Francisco Alcaraz, whom he hired as Patrón's master distiller. Francisco had developed what would become Patrón's house style, which blends tequilas made with two different processes for a complex, smooth silver tequila. That process has been part of Patrón since day one and has remained unchanged ever since.

2018 Bacardi purchases Patrón

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#### THE EARLY DAYS

At the time Patrón was founded, Francisco Alcaraz was working at the Siete Leguas distillery in Atotonilco el Alto. Impressed by his knowledge and commitment to quality, JP and Martin contracted with Siete Leguas to distill and bottle a specific blend of tahona and roller mill tequila that would be exported under the Patrón label. Shortly after it was founded, Francisco decided to come work full time for Patrón.

Patrón used both the Siete Leguas distillery and the nearby El Viejito facilities until we built our own distillery at Hacienda Patrón, which was completed in 2002-03. In 2005, the owners of El Viejito built a new distillery outside of the town of Atotonilco, and sold their original facility to Patrón. Renamed "Casa Patrón," this facility now produces roller mill tequila for use in our core blend. Casa Patrón is the oldest distillery in Atotonilco, and was the first distillery where Francisco worked.

#### **MODERN SUCCESS**

Patrón set a new era for tequila, demonstrating that great tequilas could be sipped on the rocks, and didn't need lime and salt. By bringing quality, 100% agave tequila to the United States, we helped turn around the negative perception of tequila. Patrón Tequilas and liqueurs are now available in more than 100 countries across the world, and sold in global duty-free outlets (with a history of solid success in the U.S., Patrón Spirits began developing and growing its international distribution in 2005).

In 2018, Patrón Spirits International A.G., proudly joined Bacardi Limited, the largest privately held spirits company in the world. As part of the Bacardi family, Patrón continues to evolve its innovative product offerings, and today Patrón remains one of the world's fastest-growing global spirits brands.

#### THE FUTURE

As demand for ultra-premium tequila continues to grow (and as the 100% de agave category leader), we are naturally expanding our production. We've always worked to preserve traditional tequila production methods: hand-trimming and cutting agave before baking it in small clay brick ovens; tahona milling to crush the agave piñas; fermentation in pinewood tanks; and distillation in small copper pot stills. For this reason, we have chosen to replicate our small-scale equipment and hire more staff instead of mechanizing production. The result is something unique in the spirits industry: we have now copied and built our original distillery again, side by side, to ensure that our tequila continues to honor its original process. Our new distillery expansion continues to replicate the small-batch equipment and production processes that set this tequila apart from the competition some thirty years ago.



FRANCISCO ALCARAZ — Patrón's original

Master Distiller who developed the house

style, a recipe largely unchanged to this day.



In 2018, The Patrón Spirits Company Inc. proudly joined BACARDI LIMITED, the largest family-owned spirits company in the world.



HACIENDA PATRÓN — Inspired by Jalisco's architectural history, The Hacienda houses the corporate offices and the distillery.

#### THE HACIENDA: OUR HOME

From start to finish, all Patrón tequilas are created at Hacienda Patrón. Hacienda Patrón is located in the municipality of Atotonilco el Alto in the Mexican state of Jalisco, a region known for its production of high-quality tequila. We chose this area due to its proximity to Siete Leguas, where our tequila was originally produced, and to the growers who continue to provide us with our agave. Our exact location was chosen because of the mineral content, acidity, and taste of the water, which we draw from our well sunk deep into the aquifer directly below the distillery.

Traditionally, the word *hacienda* refers to a large estate—often with several buildings and business functions—that's managed by an individual, the patrón. The name seemed like a natural fit. The Hacienda consists of:

#### The Central Building

- The main distillery
- » Offices / conference rooms
- » A chapel
- » An education / tasting room
- » Staff kitchens / dining areas
- Four guest rooms
- yeast lab

#### Liqueurs Plant

All Patrón Citrónge and XO Cafe liqueurs are produced and bottled at our own liqueurs distillery.



La Casona

Opened to guests in January 2017, La Casona guest house features luxurious guest suites, our in-house restaurant, and the legendary Copper Bar. La Casona was designed by distinguished Guadalajara interior architect Joaquin Homs.

#### Casa Patrón

Part of our production takes place at our Casa Patrón facility in downtown Atotonilco.

Formerly the El Viejito distillery, the facility was purchased by Patrón in 2005. Casa Patrón produces Patrón roller mill tequila, which is transported to the main facility where it is incorporated into the Patrón blend. All liquid and solid waste materials from Casa Patrón are processed at the Hacienda.

#### Rosa de Castilla

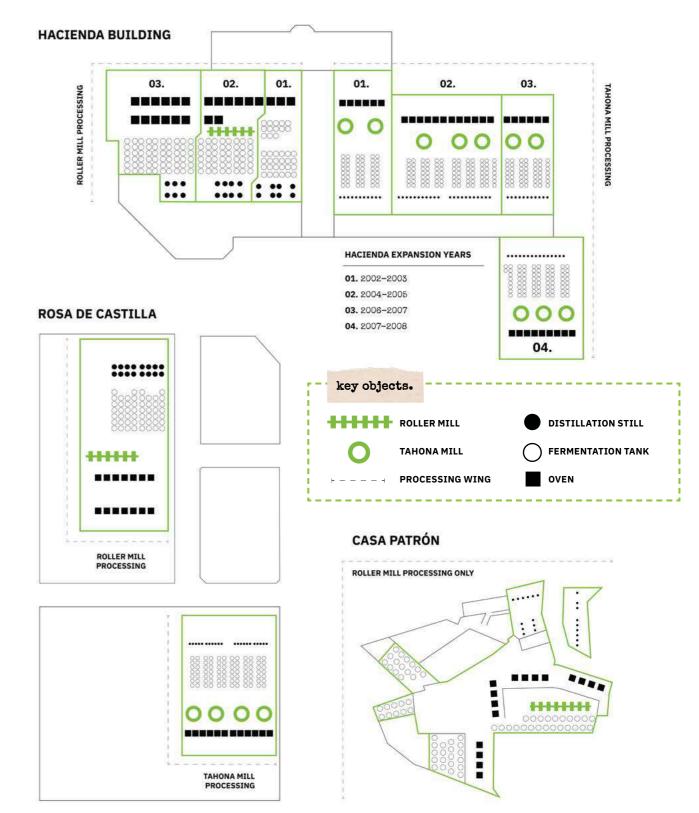
In 2018, we began construction on our latest distillery expansion, the Rosa de Castilla facility, directly behind the original Hacienda property. As with our previous production expansions, Rosa de Castilla reproduces Patrón's small-scale production modules—small clay brick ovens, tahona and roller mill extraction, pinewood fermentation, and copper pot distillation.

COPPER BAR — In 2015, Patrón broke ground on La Casona, a 4 star guest house designed by noted Mexican architect Joaquin Homs. The Copper Bar is at the heart of La Casona's legendary hospitality.

#### hacienda patrón.

Hacienda Patrón was originally constructed with two sides tahonas and on the other, one roller mill. As demand grew, so did the distillery.

Patrón built nearly identical copies of the existing distitahonas, the most in any distillery in the world.





#### Familia Patrón

We've grown from 32 employees at our birth to nearly 2,000 employees in Mexico, including over 200 engineers, biologists, and scientists. We're the biggest employer in Atotonilco, and the largest employer of any distillery in Mexico. The Hacienda staff are our family; each individual takes immense pride in their work.

#### **OUR PRODUCTION TEAM**

José Francisco Alcaraz Esparza
OUR FOUNDING MASTER DISTILLER, 1946 - 2021

The man responsible for our distinctive taste and enduring quality is Francisco Alcaraz. Known as "Ingeniero" Alcaraz, he served as our master distiller for 31 years, from the time the company was founded until his retirement in 2020.

After earning his master's degree in chemical engineering from the University of Guadalajara, Alcaraz joined the first group of Tequila Inspectors for Mexico's Commerce Department. He was eventually recruited to work at El Viejito distillery in Atotonilco by one of his professors whose family owned the distillery. El Viejito, now Casa Patrón, is the oldest distillery in Atotonilco, founded in 1937. Francisco would eventually come to run this facility in the 1970s, before embarking on his own as a consultant and advisor to the industry in the 80s.

A born innovator, he perfected every step of our house style—from baking times to the combination of two milling processes to the size and shape of our stills—through meticulous experimentation. Having



served more than 50 years in the tequila industry, he was one of the longest-serving and most beloved master distillers in the industry.

Francisco's ingenuity helped change people's perception of tequila, and influenced countless brands that have been introduced since. His legacy will live on forever in the hearts of the thousands of Patrón primos he worked with, the countless customers and consumers he met around the world, and in the iconic brand he helped to build.

### David Rodriguez MASTER DISTILLER

The first employee hired at the Hacienda facility, David now leads the entire Patrón Spirits Mexico team, including distillery operations and logistics offices in Guadalajara.

He has degrees in both biology and business, and more than 25 years of experience in the tequila industry. He previously worked at the CRT, where he developed many of the tequila verification procedures now in place.

## PATRÓN PUSHING THE TEQUILA INDUSTRY FORWARD

While the mixtos that flooded the market in the '70s and '80s are still around today, 100% agave tequilas have grown steadily in popularity, and have surpassed tequilas with other sugars added. Patrón has been a leader in increasing tequila's popularity.

- » In the mid-2000s, Patrón proved there was a market for small batch, ultra-premium tequila.
- » In 2005, Patrón products were 26% of overall 100% agave exports to the US.
- **»** By 2008 that figure increased to more than 44% and in response, the market continued to grow.
- » By 2015, we had nearly quadrupled our sales and maintained a respectable 25% of overall sales—a big slice of a pie that keeps growing.

The big takeaway from all these numbers? We've proven there's a taste for an authentic product that just tastes better. We've helped shift the perception of tequila and built a taste for quality.

# THE TEQUILA MAKING PROCESS

he production of any spirit requires a series of conscientious decisions: in this section we will cover the tequila production process and highlight some instances where we have deliberately chosen a time-consuming method that preserves tradition over a more modern method that may be more effcient.

#### **THE SIX STEPS**

To make tequila or mezcal, a producer must follow these steps:

HARVESTING AGAVE — Jimador harvesting and trimming the pencas to expose the piña of agave plants. 01. PREPARING THE AGAVE
02. ENERGY CONVERSION
03. MILLING ROASTED AGAVE

05. DISTILLATION
06. BLENDING & BOTTLING

04. FERMENTATION



 $\downarrow$ 

#### **01. PREPARING THE AGAVE:** BREAKING DOWN THE AGAVE PIÑAS

Prior to cooking, the agave piñas are broken down to evenly sized halves or quarters. This is done for a number of reasons:

- » Stackable pieces maximize space in small ovens.
- » Evenly cut pieces ensure more consistent cooking.
- » Splitting the piñas manually allows for the **cogollo** (ko-Goy-yo), the cluster of shorter leaves buried in the head of a non-flowering agave, to be carefully removed. This is done because the woody cogollo can impart a bitter flavor to the roasted agave.

#### **02. ENERGY CONVERSION:** COOKING THE AGAVE

Unlike grapes or other fruits, agave does not have readily available fermentable sugars. As with grain in whiskey production, agave requires a conversion process before fermentation, converting complex sugars to their simpler form. Agave's sweetness is locked up in long chain polysaccharides called fructans. The most commonly referred to fructan is inulin, but this is but one of many. Inulin is a long chain of fructose molecules that must be hydrolyzed in order to be released. The most straightforward way of doing this (but not the only one) is by cooking. Cooked agave is full of simple sugars which are ready to be fermented. There are three main ways to cook agave: pit ovens, brick ovens and autoclaves. We will discuss diffusers in the next section.

#### Pit Ovens

In the production of ancestral agave spirits, piñas are buried in a pit in the ground along with hot stones and a heat source, usually a fire of wood or coals. The agaves are stacked atop the stones and covered with earth, providing insulation for a very long, slow roasting process that generally takes 3-7 days. This method is extremely labor-intensive, and has been practiced relatively unchanged for hundreds of years. Though no longer used in tequila production except on the rare occasion, it is still common in the production of mezcal and other regional agave distillates (See Chapter Three).

#### **Brick Ovens**

Clay brick ovens began to replace pit ovens around the turn of the 20th century, even though the technology still requires a lot of labor in stacking and emptying the ovens. Piñas are stacked inside steam powered brick ovens, with the temperature in the ovens alternating with periods of heat and periods of rest. From start to finish, this way of cooking generally takes 48-72 hours.

#### **Autoclaves**

The most modern and efficient method of roasting agaves, autoclaves, are essentially large pressure cookers. They can cook the agave—or the



COGOLLO

PIT OVENS





BRICK OVENS



HAND CRUSHING



TAHONA



ROLLER MILL

agave juice-extremely quickly and efficiently. In this method, technological efficiency replaces labor; this process dates back about 50 years, and was adopted from the sugar refining industry. We believe that this practice sacrifices some of the flavor characteristics of slow cooked agave, which are lost in the interest of speed.

#### **03. MILLING ROASTED AGAVE:** SHREDDING & EXTRACTING JUICE FROM THE COOKED AGAVE

The roasted agave hearts must be pressed in order to release the sugary liquid inside, making these sugars available for fermentation. There are four main ways to process roasted agave: hand crushing, tahona, roller mill, and diffuser.

#### **Hand Crushing**

This ancient method of shredding agave utilizes wooden bats and/or machetes, and requires only human power. This traditional, laborintensive process is still utilized for small producers of various types of mezcales throughout Mexico. As of this writing, we are only aware of one producer of tequila who is using this process.

#### Tahona

Dating back at least four hundred years, this method utilizes a volcanic stone wheel to crush the roasted agave. Today, tahonas may be powered by an engine, tractor, donkey, or horse. This process was largely phased out of the tequila industry in the latter half of the 20th century, though it appears to be undergoing a resurgence in popularity. Very few distilleries use this method. As of this writing we are aware of 7 producers, but Patrón leads the charge as the largest global producer of tahona-milled tequila, with ten tahonas working at all times. There are more tahonas working at Patrón than in the rest of the tequila industry combined with 14 tahonas working at all times.

- » Patrón
- » Suerte
- » Fortaleza
- » La Alteña (El Tesoro)
- » Olmeca (Olmeca Altos)
- » San Matias

» El Pandillo (G4) \*El Pandillo deploys a unique mill known as "Frankenstein," that works similar to a tahona and thus we have included it on this list.

#### **Roller Mill**

In this process, roasted agave is run through a series of five rollers to be broken down, after which the agave fibers are rinsed with water to release fermentable sugars, which are collected below the device and sent for fermentation. Consistent sugar concentration is maintained by adjusting the amount of water added throughout the process. This method, originally adapted from sugar cane producers, is now the most common milling method utilized by tequila distilleries.

#### Diffuser

The diffuser is an industrial technology that inverts the tequila-making process. Shredded agaves enter the diffuser in their raw, uncooked state, and sugars are extracted by spraying hot water under high pressure, sometimes with the assistance of sulfuric acid. The process is highly efficient, as it extracts up to 98-99% of the available sugars, though results in tequilas that lack the complexity of traditional production methods.

#### **04 FERMENTATION:**

## CONVERTING THE SUGARS IN PRESSED AGAVE JUICE INTO ALCOHOL

A producer has many choices when it comes to elements that contribute flavor during the fermentation process, the main three being: yeast strain, fermentation conditions, and whether or not to include bagazo.

#### Yeast strain

Yeast are microorganisms that convert sugar to alcohol; they occur in the wild but are also propagated commercially. Some alcoholic beverages derive much of their flavor from their main sugar source (tequila from agave, brandy from grapes), while others develop their flavor through the process of fermentation (notably rum and whiskey). In all spirits, the strain of yeast used to convert sugars to alcohol is one element that differentiates spirits made from the same raw material.

#### **Fermentation Conditions**

Yeast operate and optimize at very specific temperatures and the change of a few degrees can yield wildly different flavors. This is partly due to the fact that yeast are competing with other microorganisms and bacteria for the sugar in the agave juice. Producers may choose to control the temperature of their fermentation vats either naturally, using materials that are natural insulators like pine, or through technology, most frequently jacketed vats. Likewise, they may choose to alter the acidity of their fermentation to both optimize yeasts and select those yeasts over competing fermenting microflora and microfauna.

#### Including or Removing Bagazo (fibers)

At only a few tequila distilleries, tahona-milled agave is fermented with some of the bagazo, which contains a lot of fermentable sugars. In these fermentations, bagazo floats to the top and forms a cap on top of the mosto, or juice. This cap limits evaporation, creating an anaerobic environment in which the yeast produces a specific set of flavors. Roller-milled agave is generally fermented without bagazo, as the more efficient milling process does a better job of extracting sugars from the fibers. These fermentations are exposed to the air (aerobic) and tend to experience higher levels of evaporation, allowing a different set of flavors to develop.



PINEWOOD FERMENTER WITH
MOSTO AND BAGAZO



COPPER POT STILLS

PATRÓN BOTTLE — Patrón bottles are filled with 100% de agave tequila made by Patrón. We do not make tequila for any other distillery, nor does any other distillery make tequila for us.

## **05. DISTILLATION:**CONCENTRATING THE ALCOHOL IN THE FERMENTED LIQUID

In the distillation process, heat is applied to the still containing the fermented mosto; alcohol evaporates and condenses to a higher proof. There are two main processes to distill tequila and the size and shape of the still substantially influences the end product.

#### Batch Distillation in a Pot Still

Generally, all tequilas made in this way go through a double distillation. The primary distillation converts the fermented mosto (with an alcohol content of 3-10%) into what is called the ordinario (with an alcohol content of about 20%). A very small number of distillers choose to include the bagazo from their fermentation in the still for the primary fermentation. The secondary distillation converts the ordinario (with an alcohol content of about 40%) into tequila (with an alcohol content of about 55%).

#### Continuous Distillation in a Column Still

Distilling can be achieved much more quickly in industrial column (or Coffey) stills. These tend to be several stories high and have the ability to distill continuously, meaning they don't have to stop in between each batch to clean the still. This type of still came into popularity in the 19th century when distillers wanted to create products in greater volume and in a shorter amount of time. Column stills are not common to traditional tequila production

#### **Growth from Replication without Automation**

In 2002, demand for 100% agave tequila was growing, and we knew Patrón had an opportunity to meet that need. It would have been easier and cheaper to increase the size of our ovens and stills, or move to different, automated distillation techniques. We determined that the only way to ensure the quality of the product moving forward would be to reproduce the methods that had worked for us all along. Today, we have built many replicas of the original production chain—including over 100 copper pot stills—to handle demand.



## **06. BLENDING & BOTTLING:**CREATING A CONSISTENT FLAVOR & PACKAGING FOR SALES

Since every batch of tequila has its own subtle differences, blending is a common practice in spirits (and wine) production to ensure consistency and develop a house style.

|44 |45

#### preserving traditional methods.

#### 01. Preparing the Agave

#### WE REMOVE THE COGOLLO

Agaves are cut into uniform pieces to ensure even cooking.

#### 02. Energy Conversion

#### **WE USE BRICK OVENS**

Our traditional brick ovens and long cooking times yield cooked agave that's both complex and consistent in favor. of steaming and rest over un via afterodistillation it was the two tequilas allows the agave to cook evenly throughout. Gran Patrón Smokey, the newest member of the Gran Patrón line, is the on 05, Destidation ion and is made in underground stone pit ovens.

as the fbers were separated during mil so its mosto is fermented alone. This produces tequila with citrus fruit and fresh agave characteristics. The two fermentations end up tasting sig-

agave mosto is fermented without the

Roller - mil

nifcantly different, and remain separa We throughout nthet distiple ation process. It's not are blended together.

pronounced earthy favors.

#### TWO DISTINCT DISTILLATIONS

We use small copper pot stills because they're integral to developing Patrón's signa favors. We distill the tahona and rol t hmilele tequiples separately rands differently, resulting in two distinct liquids that, when combined, become Patrón Silver.

own favor characteristics -Ontthe tahona bide, our stills are tiny by industry standards: 700L (primary) and 500L (secondary). The mosto and bagazo are both included in the primary distillation: this distinct favor profles to chraelaltmenanak boaflatnhoeedPatrón method produces complex end product in Patróone Os úsl, ve earthy, baked agave favors.

#### 03. Milling

#### WE USE TWO PARALLEL MILLING PROCESSES

At Patrón it takes about seven tons of agave with the tahona, and one hour to crush 14 tons of agave on the roller mill. Each method produces a distinct tequila with its produces tequila with fruity citrus notes, and from the tahona we get earthy, vegetal tequila. Our house style blends the two tequilas and their

#### 04. Fermentation

#### WE USE SMALL. PINE FERMENTATON VATS. TWO FERMENTATION METHODS MEANS TWO DIFFERENT PRODUCTS

wooden tanks made from pine wood planks. These have become extremely rare in the tequila industry because they require meticulous cleaning after each use and must be replaced every four years. We believe wood vats provide the best sugar conversion, as they have natural thermal control that protects against temperature extremes in both hot and cold seasons.

Tahona-milled agave mosto, or juice, is fermented together with its Fermented mosto from this process ends up with a rich baked agave scent and taste, plus

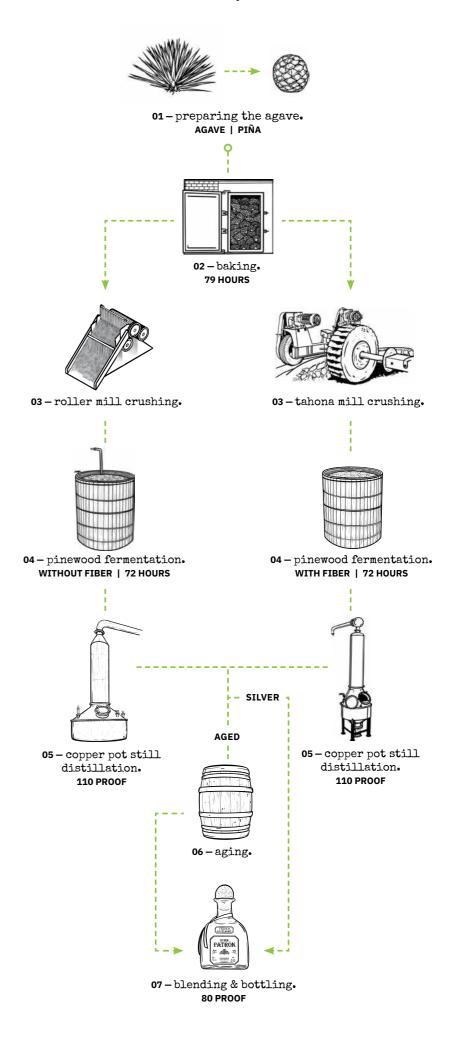
On the roller mill side, our stills are slightly larger, but still small for the industry, around 2,500L (primary) and 1,500L (secondary). The more squat shape and long neck help bring All fermentation at Patrón toatkfrusitier, sweeter characterástics.

#### 06. Aging

#### 07. Blending & Bottling

#### THE PERFECT BLEND

The fnal steps of the process for Patró are blending and bottling. The tahona- and roller-milled distillates emerge from the distillation process at 55% alcohol (110 proof). To form the complex favor profle that distinctive house style, we blend the two disbtablateso together with ours water from our deep well to reduce the alcohol content to 80 proof for most products.





## AGING TEQUILA

ging is the slow transformation of tequila as it spends
time resting in wood barrels. This process allows the
spirit to gain additional favor c
through the natural physical and chemical processes that take
place over time. Understanding the aging process for each type
of tequila will illustrate how each one is special.



BARRELS — Añejo and extra añejo tequilas must be aged in barrels—the majority of which come from the Bourbon industry, which, by law, can only use them once.

## LEGAL DEFINITIONS OF AGING TERMS IN TEQUILA

There are five legally defined classes of aged tequila:

#### 01. GOLD

A sweetened and/or caramel- colored spirit. Gold tequilas, and Joven (Spanish for "young"), were originally created to simulate aging. These are often mixtos, tequilas formulated with sugar from sources other than agave. Joven tequilas are usually a blend of unaged and aged tequilas, and may also be colored. Glycerin and other mellowing agents are allowed up to 1% by volume. Patrón makes no gold tequila and uses no mellowing agents or additives in any of our tequilas.

#### 02. SILVER OR BLANCO

Aged no more than two months.

#### 03. REPOSADO

Aged for at least two months in an oak container of any size.

#### 04. AÑEJO

Aged for at least one year in small (158 gallons or less) oak containers.

#### **05. EXTRA AÑEJO**

Aged for at least three years in small (158 gallons or less) oak containers.

#### **INTRODUCTION TO WOOD SCIENCE**

Quercus alba (American white oak) and Quercus petrea (European white oak) are the predominant species of oak used by cooperages for cask-making. Both impart marginally variable distinctions in flavor to tequila when used for maturation, in large part thanks to their differences in density. As American oak tends to have more widely-spaced inner rings, barrels made from it allow for greater rates of diffusion of oak lactones and oxygen than European oak casks

In addition to this difference in species, the specific climates in which the respective oaks grow is also known to affect the flavor of a matured spirit. Consequently, spirits aged in casks made from European oak trees grown in Allier, France, taste different from spirits aged in European oak sourced from the Zemplen mountains in Hungary. However, both species of oak ultimately add value to tequila, with American oak lending robust flavors to the spirit and promoting oxidation, and European oak imparting more delicate, fruity, and spicy flavors.

#### **FLAVOR COMPOUNDS FROM OAK**

How oak and its toast level introduce flavors into tequila varies by cooperage house style and producer specifications. Certain compounds are directly responsible for the contribution of specific, well-known flavors imparted from barrel to tequila, and are thermally sensitive.

**CIS-AND TRANS-OAK LACTONES** 

Woody or coconut flavors

FURFURAL

Dried fruit, burned almonds, burnt sugar, sweetness, light caramel flavors

**EUGENOL** 

Spices, cloves and smoke character

**GUAIACOL**Burnt overtones

burnt overtones

**OAK LACTONE** 

Woody, dill and coconut notes

VANILLIN

Vanilla

SYRINGALDEHYDE
Similar to vanilla

#### WHAT ARE TEQUILA ADDITIVES?

Just like in food, flavorings and colorings are frequently added to tequila to create uniformity in flavor and color between batches. As science has developed, these additives—officially known as *abocantes* or mellowing agents—have become extremely concentrated, and just a few drops can wildly alter the final product. In tequila, they are frequently used to mimic the effects of aging, or to compensate for the lack of complexity that may result from the use of time-saving or cost-saving measures in the production process. Additives can make a tequila taste sweeter, feel richer, look darker, and smell like just about any aroma under the sun.

#### what is abocado?

Abocantes are mellowing agents—like caramel, glycerin, wood tincture, etc.—that are legal additives to mimic the effect of aging. Because they're legally allowed, they are not referred to as additives'. In fact, there is no additive labeling requirement whatsoever, so you can't know for certain at a glance if a product contains them, but you can make an educated guess. Joven a btequila is basically just a code word for "gold," which many tequila producers make, they just don't have to label or report it as such. Abocantes can be be added to all tequilas except for Blancos, where it is prohibited. Remember: Patrón does not use mellowing agents!

Although additives are legally permitted in the production of tequila (up to 1% by volume in a finished product), they are rarely talked about in the industry and never appear on the label of a bottle, since the laws do not require tequila producers to disclose the use of additives in their products.

#### **Discerning Additives**

So, if a tequila producer is not legally required to disclose the use of additives in their product, how can one tell if a tequila contains additives? The answer is, if you know what you're looking for, you can taste it! Clayton Szczech, of Experience Tequila, says, "If you taste many different tequilas from many different producers, you sort of develop a facility of what the natural range of aromas and flavors are. When you taste something that is completely outside of that, that's sort of a red flag for me."

### Legally Permitted Additives CARAMEL COLOR

Used primarily for the purposes of adding color to the finished product. Caramel coloring is extremely concentrated and a few drops can make a blanco look like an añejo. Joven abocado is the regulatory term that describes what is commonly known as "gold" tequila.

#### **GLYCERIN**

While glycerin is a natural byproduct of fermentation and distillation, additional glycerin can be added in order to create a more rounded mouth feel. Commercially available glycerin is very thick and it can make a tequila that is thin or watery feel fuller and thicker in your mouth.

#### JARABE (SUGAR-BASED SYRUP)

Producers can use *jarabe* made from agave nectar, corn syrup, cane sugar, aspartame, sucralose (Splenda), or stevia as a highly concentrated sweetening agent for tequila. Additive makers are able to replicate aromas and flavors in very sophisticated ways.

#### OAK EXTRACT

This adds aromas and flavors found in an oak barrel to the finished product. When using oak extracts, it's possible to make a tequila smell or taste as though it is aged longer than it actually was.



Photo credit: Caitlin Cunningham

#### tequila tasting wheel.

The aromas and favors are organized roughly according to weight, with light, ethereal, highly volatile notes at the top, and deeper,

heavier notes lower down. At the very bottom are tertiary favors generally associated with tequila aged in wood.

O<sub>range</sub> Tobacco *Apple* Black Tea Orchard Cider Corn Sweet Potato Cherry PATRÓN Cooked Agave Peach White Pepper Black Pepper Pineapple Melon

#### ESTIBA — The iconic storage method for tequila, barrels are stacked in pyramidal structures, here shown

in one of Patróns barrel rooms.

#### THE PATRÓN AGING PROCESS

Many variables of the aging process can influence the final profile of the tequila, including the barrel wood type, the char level of the barrel, how many times the barrel has been used before, the temperature in the cellar, the humidity level of the cellar, and the proof of the tequila when it first enters the barrel.

#### **TYPES OF WOOD USED AT PATRÓN**

While all variables have an influence on the final flavor of tequila, all decisions start with the barrel. We use a variety of barrels to age different products, including:

#### FRENCH: ALLIER WHITE OAK

(Medium toast) Imparts dried fruit, raisins, subtle oak, spice.

#### FRENCH: LIMOUSIN WHITE OAK

(Medium toast) Imparts intense fruit, toasted oak, dried fruit, light vanilla.

#### BORDEAUX WINE: FRENCH OAK

Imparts red fruit, oak, dried fruit.

#### **HUNGARIAN: WHITE OAK**

(Medium toast) Imparts citrus, fruit, caramel, butter, subtle oak.

#### HYBRID: NEW FRENCH LIMOUSIN HEADS & NEW AMERICAN OAK STAVES

(Medium toast) Imparts citrus, fruit, vanilla, oak, dried fruit.

#### USED AMERICAN WHISKEY: AMERICAN OAK

(Medium toast) Imparts citrus, light fruit, vanilla, light oak

#### SPANISH OLOROSO SHERRY: AMERICAN WHITE OAK

Imparts fig, raisins, pecan and dried fruit.



We choose to blend each aged tequila before bottling, because different barrels and aging times impart different characteristics. At Patrón, the production team knows exactly what kind of flavor profile each tequila should have, and blending helps make this consistency and smoothness of flavor a reality. A different combination of barrels may be used each time to ensure consistent quality and flavor; for example, the blending process might use five barrels of one type combined with three from another year.

#### OTHER AGING VARIABLES AT PATRÓN

Our barrel rooms are not climate controlled, which leads to a higher percentage of "angel's share" than many other tequila distilleries. Angel's share is the percentage of tequila in the barrel that evaporates over time. At Patrón, our average percentage of evaporation is 1% per month. It might seem like a large sacrifice over time, but it's the way we get the right flavors from the barrels, so the spirited tax is worth the cost.

At Patrón, tequila enters the barrel at 110 proof, the same proof at which it comes off the still.





fve distinct categories of pro our core line of tequilas plus liqueurs and special edition releases, patrón has something for everyone.

#### THE FIVE PATRÓN CATEGORIES

- » Gran Patrón Platinum
- » Gran Patrón Burdeos

#### THE ROCA LINE

- » Roca Patrón Silver
- » Roca Patrón Reposado
- » Roca Patrón Añejo

#### **LIQUEURS**

- » Patrón Citrónge Orange
- » XO Cafe Coffee Liqueur

#### LIMITED EDITIONS

#### & SPECIAL RELEASES

- » Patrón X Guillermo del Toro
- » Patrón en Lalique Serie 1 Extra Añejo
- » Patrón en Lalique Serie 2 Extra Añejo
- Cask Collection Sherry Cask Añejo
- » Estate Release
- » Patrón Extra Añejo 5 Años
- » Patrón Extra Añejo 7 Años
- » Patrón Extra Añejo 10 Años

#### **PATRÓN SILVER**



**OVERVIEW** The world's first ultra-premium tequila, Patrón Silver should be savored from the very first sip--delicate aromas of roasted agave and fresh citrus yield to the sweet and smooth taste of this classic silver tequila, with a light pepper finish. Patrón silver represents the perfect balance of fresh agave flavor with baked agave undertones essential notes you'll find in all Patrón Tequilas.

**AGE** The starting point for the entire line of core products, silver is an unaged, 100% agave tequila.

**PROOF** 80 proof

Low alcohol note, sweet agave, fruity notes of citrus (lime peel), banana, green apple, grapefruit, spicy notes of

black pepper.

TASTE Soft, sweet, fresh agave, cooked agave, honey, cooked pumpkin, citrus (orange rind, lemon peel), notes of black pepper.

#### **PATRÓN** AÑEJO



**OVERVIEW** A distinctly barrel-aged spirit, Patrón Añejo develops a sweeter profile over time due to its interaction with oak barrels for 12 to 15 months. Big wood notes become prevalent during this time without overpowering the baked agave flavors that are uniquely Patrón. Perfect for sipping or in your favorite cocktail, the spirit also features an elegant, smoky sweet finish.

**AGE** To create Patrón Añejo, we age Patrón Silver for 12 to 15 months in French Limousin, French Allier Oak, Hungarian Oak, Hybrid American/French barrels and used American Bourbon barrels. This adds complexity to the flavor and a clear, bright, amber color.

**PROOF** 80 proof

AROMA Low alcohol note, sweet, light cooked agave, woody, toasted dried fruits, vanilla. Apricot, spicy oak, cinnamon.

**TASTE** Soft, rich and sweet, very light cooked agave, woody, toasted dried fruits, vanilla, honey, spicy, black pepper,

#### the core line.

Handmade in small batches to be smooth, sweet and easily mixable. The company's frst tequilas were Patrón Silver and Patrón Añejo, which were followed in 1992 with the introduction of Patrón Reposado, and in 2017 with Patrón Extra Añejo. The core line blends tahona and roller mill distillates and is bottled at 80 proof. Patrón Silver is the best-selling 100% de agave tequila in the world.

#### **PATRÓN REPOSADO**



**OVERVIEW** Patrón Reposado is aged for three to five months in a combination of new and used American. French and Hungarian oak barrels. This spirit maintains the roasted agave flavors unique to Patrón, while mingling in perfect harmony with hints of light oak.

AGE Patrón Silver aged for 3-5 months in French Limousin, French Allier Oak, Hungarian Oak, Hybrid American/French barrels and used American Bourbon barrels. This adds complexity to the flavor and a clear, bright, light gold color.

**PROOF** 80 proof

AROMA Low alcohol note, fresh agave, cooked agave, citrus (lemon tea), pineapple, light oak, tannins, slightly sweet, caramel.

**TASTE** Soft, sweet, light fresh agave, cooked agave, light oak wood, honey, vanilla, citrus notes, fruity (banana, apple, pear).

#### PATRÓN **EXTRA AÑEJO**



**OVERVIEW** Patrón Extra Añejo tequila, crafted from Mexico's highestquality 100% Weber Blue Agave, is distilled in small batches aged exceptionally to create an extraordinarily rich taste. Extra Añejo is aged in a combination of new and used American, French and Hungarian oak barrels for at least 3 full years, imparting a unique taste of dry fruits, banana, honey and vanilla, together with a light distinctive flavor of agave.

**AGE** Patrón Extra Añejo uses the same process and barrels as Patrón Reposado and Patrón Añejo, but ages for about 3 years.

**PROOF** 80 proof

**AROMA** Low alcohol note, sweet, fruity, medium oak, vanilla, dried fruits, raisins, light cooked agave, honey, caramel, light banana, citrus (orange, lemon, grapefruit).

**TASTE** Sweet, fruity (apple, banana), dried fruits, light nuts, citrus (orange, lemon), honey, oak, vanilla.

#### **GRAN PATRÓN PLATINUM**



**OVERVIEW** Gran Patrón Platinum is made from the finest 100% Weber Blue Agave at the Hacienda Patrón distillery in Jalisco, Mexico. Triple distilled and rested 30 days in oak tanks to impart a subtle oak creaminess, Gran Patrón Platinum is presented in a hand-numbered crystal bottle and elegant case.

AGE A triple-distilled silver tequila that rests for 30 days in oak tanks.

**PROOF** 80 proof

AROMA Fresh agave, herbal tea, vanilla, lime zest, orange.

**TASTE** Baked agave, cream soda, orange rind, ripe pear.

#### **GRAN PATRÓN PIEDRA**



**OVERVIEW** Gran Patrón Piedra is made from the finest 100% Weber Blue Agave and is crafted using the centuries-old tahona process at Hacienda Patrón distillery in Jalisco, Mexico. It's aged in a combination of French Limousin and new American oak barrels for four years and is presented in a distinctive crystal bottle and elegant box.

AGE Tahona-only Extra Añejo. Aged specifically in hybrid barrels (New French Limousin heads, New American Oak staves, medium toasted) for 4 years.

**PROOF** 80 Proof

AROMA Sawdust, forrest floor, toasted coconut, sweet potato, dried apples.

TASTE Pumpkin pie, nutmeg, caramel, ginger spice, apple, char, leather.

#### the gran patrón line.

Joining Gran Patrón Platinum in 2007 was Gran Patrón Burde Our most sophisticated luxury tequilas, with incredibly distinct productibre a negation and included a new tequilas, with incredibly distinct productions and a new terms of the debuted in 2004 and offers unique tequilas that utilize uncommon production and aging techniques and aged in new French oak before fnishing in vintage Fren to create extraordinary favor profles. The frst release, Gr<mark>an PatrGórnanPlRaattirnóurm, liinse ma 61 ea fir &</mark> matornólny Piedra was introduced in 201 the fnest agave from the harvest, triple-distilled for extraordintequi)La (segendofort mhome ethsan three ny edars). The kianeg weaslex panded again in 2018 with the introducin an etched crystal bottle inside an elegant black display case. tion of Gran Patrón Smoky.

#### **GRAN PATRÓN BURDEOS**



**OVERVIEW** Gran Patrón Burdeos is crafted in very limited quantities from the finest 100% Weber Blue Agave grown in the Highlands of Jalisco, Mexico. Twice distilled and aged in used American and new French oak barrels, it is then finished in vintage Bordeaux wine casks, imparting a dark amber color and a taste that's velvety smooth with hints of vanilla and raisins.

AGE Unique third distillation after 2 years of aging, then aged once more. Aged specifically in used American Bourbon barrels and French Limousin oak barrels and finished in vintage Bordeaux wine barrels.

**PROOF** 80 proof

AROMA Charred oak, raisins, amber honey, coriander, sultana, hints of roasted pumpkin.

TASTE Roasted agave, vanilla, raisins, light tannins, blackcurrant, fruit stew. bread crust.

#### **GRAN PATRÓN SMOKY**



**OVERVIEW** Gran Patrón Smoky celebrates the ancient practice of roasting agaves in stone-lined earthen pit ovens. After roasting for about a week in the ground, the agaves are pressed by a two-ton volcanic stone tahona wheel, then fermented and distilled on their own fibers. Gran Patrón Smoky is bottled at 101 proof to showcase the influence of this ancestral technique.

AGE Tahona-only, unaged tequila made with ancient cooking process. The Weber Blue agave is roasted in small underground stone pits with mesquite wood for 7 days, which imparts a very unique and distinctive smoky taste and aroma.

**PROOF** 101 proof

**AROMA** Smoked agave, wet soil, white pepper, grapefruit & bbq.

**TASTE** Smoked agave, artichokes, lemon zest, poblano, gouda.

08 ~ our products academia patrón.

#### ROCA PATRÓN SILVER



OVERVIEW Roca Patrón Silver is handcrafted from the finest 100% Weber Blue Agave at Hacienda Patrón distillery. After baking for 79 hours in small brick ovens, the agave is pressed by a two-ton volcanic stone tahona wheel, then fermented and distilled on its own fibers. Roca Patrón Silver is specifically finished at 90 proof to create a crisp, robust tequila with notes of sweet agave.

AGE Unaged

**PROOF** 90 proof

**AROMA** Pronounced, baked agave, root vegetables, dried herbs,

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**TASTE** Pumpkin seeds, roasted sweet potato, earthy, vegetal, peeled citrus.

#### ROCA PATRÓN AÑEJO



OVERVIEW Roca Patrón Añejo is handcrafted from the finest 100% Weber Blue Agave at Hacienda Patrón distillery. After baking for 79 hours in small brick ovens, the agave is pressed by a two-ton volcanic stone tahona wheel, then fermented and distilled on its own fibers. Roca Patrón Añejo is aged for fourteen months in American whiskey barrels and specifically finished at 88 proof to create a tequila with a sweet, slightly earthy flavor.

AGE Aged about 14 months in used American bourbon barrels.

**PROOF** 88 proof

**AROMA** Baked agave, mushrooms, fresh cut wood, sweet pear, fuji apples, candied orange.

**TASTE** Pumpkin pie, ginger, tobacco, leather, raisins, cardamom.

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#### the roca line.

In recent years, with more and more quality tequila available, drinkers have developed a taste for complex, more agave-forward tequilas. One of the most the company came in 2014 when Patrón introduced Roca Patrón, a line of artisanal tequilas created entirely from the ancient tahona process. These tequilas (Silver, Reposado and Añejo) are fnished at their own specific proof levels to ensure the best favor profle for balance and complexity.

#### ROCA PATRÓN REPOSADO



OVERVIEW Roca Patrón Reposado is handcrafted from the finest 100% Weber Blue Agave at Hacienda Patrón distillery. After baking for 79 hours in small brick ovens, the agave is pressed by a two-ton volcanic stone tahona wheel, then fermented and distilled on its own fibers. Roca Patrón Reposado is aged for five months in American whiskey barrels and specifically finished at 84 proof to create a tequila with an oaky, sweet agave flavor.

**AGE** Aged about 5 months in used American bourbon barrels.

**PROOF** 84 proof

**AROMA** Baked agave, after-rain soil, honeydew, honeysuckle, vanilla, butterscotch, sawdust, coconut, caramel, pineapple cake.

**TASTE** Cooked sweet potato, mushrooms, apple pie.

## **LIQUEUR**



XO CAFE COFFEE OVERVIEW Patrón XO Cafe is a dry, low-proof coffee liqueur that's a blend of Patrón Silver and the essence of fine Arabica coffee. It's excellent for sipping, mixed in cocktails or as a dessert ingredient.

**PROOF** 70 proof

AROMA Fresh roasted coffee beans, chocolate,

brown sugar, vanilla.

**TASTE** Rich, caramel, coffee, orange blossom, agave.

#### **PATRÓN X GUILLERMO DEL TORO EXTRA AÑEJO**



**OVERVIEW** Patrón teamed up in 2017 with the award-winning Mexican director, producer, and writer, who is originally from Jalisco, for this collaboration with Francisco Alcaraz. Packaged in a box designed by Guillermo del Toro and illustrated by Guy Davis, his longtime collaborator, the process of creating the spirits' presentation took over a year, with the first sketch drawn in March of 2015.

**AGE** Aged about 4 years in hybrid barrel, used American Bourbon, and Oloroso Sherry barrels.

**PROOF** 80 proof

AROMA Low alcohol note, sweet, dried fruits, raisins, vanilla, light sherry notes.

TASTE Smooth, sweet, complex, baked agave, honey, vanilla, caramel, notes of sherry, long finish, spicy.

#### liqueurs.

Originally launched with Patrón XO Cafe and Patrón Citrónge

liqueurs are Patrón-tequila based and produced exclusively at the hacrenda

#### limited editions & special releases.

Patrón periodically releases exceptional limited-edition t

#### **PATRÓN CITRÓNGE ORANGE**



**OVERVIEW** A perfect Margarita requires the perfect orange liqueur, such as Patrón Citrónge Orange. Made with Patrón tequila at its base, Citrónge Orange is a premium reserve, extra fine orange liqueur, delicately blended to deliver a sweet and bright fresh orange taste to Margaritas, and a wide variety of other classic & modern cocktails and desserts.

**PROOF** 70 proof

AROMA Orange peel, bitter & sweet oranges.

**TASTE** Fresh orange, marmalade.

**PATRÓN X GUILLERMO DEL TORO LIQUEUR** 



**OVERVIEW** A deep, sweet liqueur that reveals new depths of flavor

when combined with Patrón Guillermo del Toro Extra Añejo, from which it is made.

**PROOF** 70 proof

AROMA Fruity, with notes of vanilla, clove and caramel.

**TASTE** Honey, dried fruit, nuts, orange, vanilla, citrus, cooked agave.

#### **PATRÓN EN LALIQUE SERIE 1 EXTRA AÑEJO**



#### With only 500 bottles available worldwide, Patrón en

Lalique: Serie 1 is an extremely rare spirit, presented in a crystal decanter that's just as exclusive. The firsttime collaboration between Mexico's finest tequila and the masters of French crystal celebrates artistry and craftsmanship with an exceptional blend of the oldest and rarest Patrón Tequilas. This small batch was created exclusively for this partnership and is presented in a handmade crystal Lalique decanter that can be displayed in the included leather case with gemstone detail.

**AGE** Aged over 4 years in a combination of new American oak and new & used French oak.

**PROOF** 80 proof

**AROMA** Balanced alcohol note, smooth, complex, caramel, honey, vanilla, cooked agave, dry fruit, raisins, light citrus, toasted nuts, spicy, clove.

**TASTE** Sweet, cooked agave, caramel, vanilla, raisins, light citrus, spicy, clove, light wine.

#### limited editions & special releases.

Continued.

#### **PATRÓN EN LALIQUE SERIE 2 EXTRA AÑEJO**



**OVERVIEW** Patrón En Lalique: Serie 2 is the second coming of an extraordinary collaboration between the masters of French crystal and the masters of fine tequila. The limitededition crystal decanter features an Art Deco style with many of Lalique's signature techniques incorporated, representative of Patrón's handcrafted process. Only 299 bottles were created.

AGE Aged over 8 years in a combination of American oak, French oak, French oak and sherry barrels.

PROOF 80 proof

AROMA Low alcohol note, smooth, sweet, fruity (apple, banana, pear), cooked agave, vanilla, dried fruit, raisins, toasted nuts (almond, pecan, hazelnut), light tobacco.

TASTE Sweet, honey, light agave, fruity (apple, banana, pear), vanilla, toasted nuts (almond, pecan, hazelnut), dried fruit, raisins.

#### PATRÓN CASK COLLECTION SHERRY AÑEJO



**OVERVIEW** Limited-production Patrón Cask Collection Sherry Cask Añejo is a remarkably distinctive tequila that has matured for more than two years in oak barrels from Spain that were previously used to produce the finest Oloroso Sherry. The barrels do their part, but each is different, so it takes the artisanal talent and skill of our master distiller to artfully blend from those casks to achieve the perfect expression of this spirit.

AGE Aged about 2 years in Oloroso Sherry oak barrels.

**PROOF** 80 proof

AROMA Low alcohol note, smooth, complex, cooked agave, pecan, dried fruit, raisins, light butter, sweet caramel,

subtle fruit (wine).

**TASTE** Smooth, baked agave, sweet, caramel, pecan, dried fruit, raisins, vanilla, light butter, slightly bitter (wine).

#### **PATRÓN ESTATE RELEASE**



**OVERVIEW** A limited-edition silver tequila crafted exclusively from agave grown on the grounds of Hacienda Patrón. The inaugural release used plants harvested on-site in Spring of 2018. The Tahona process was used to crush the 4,674 piñas for the small batch tequila.

AGE Unaged

PROOF 84 proof

**AROMA** Intense cooked agave, lemon tea and fruit

**TASTE** Smooth and sweet, cooked agave, citrus, herbal notes, floral, black pepper finish.

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#### **PATRÓN EXTRA AÑEJO 5 AÑOS**



#### **OVERVIEW** Patrón Extra Añejo 5 Años is a rare tequila made from the finest 100% Weber Blue Agave that is aged for five years

in hybrid new American Limousin oak and used whiskey barrels. It is presented in a hand-blown glass replica of the very first Patrón bottle.

AGE Aged for 5 years in hybrid barrel (new French Limousin oak and used Bourbon barrels).

**PROOF** 80 proof

AROMA Low and balanced alcohol note, fruity, sweet, caramel, honey, toasted oak, vanilla, light cooked agave, light citrus, herbs, dried fruit, raisins, light butter.

TASTE Smooth, fruity, sweet, caramel, toasted oak, vanilla, light cooked agave, light citric notes, dried fruit, raisins, spicy, clove.

#### limited editions & special releases.

Continued.

#### **PATRÓN EXTRA AÑEJO 7 AÑOS**



**OVERVIEW** Patrón Extra Añejo 7 Años is the one of the rarest tequilas made at Hacienda Patrón distillery in Jalisco, Mexico. The finest 100% Weber Blue Agave is harvested, baked, distilled and then aged in French oak barrels for seven years. It is presented in a hand-blown glass replica of the very first Patrón bottle.

**AGE** Aged in French oak for 7 years.

**PROOF** 80 proof

Low alcohol note, fruity, citrus (orange), dried fruits, raisins, almonds, baked agave, earthy notes, honey, light butter, caramel, cinnamon.

**TASTE** Smooth, sweet, oaky, baked agave, dry fruit, raisins, honey, orange peel, caramel, long finish with notes of cinnamon.

#### **PATRÓN EXTRA AÑEJO 10 AÑOS**



**OVERVIEW** An extraordinary tequila that has been aging in ideal conditions in the barrel room at Hacienda Patrón for an impressive ten years, Patrón Extra Añejo 10 Años is the oldest tequila made at the Patrón distillery. After a decade in American oak barrels and hybrid American/French Limousin oak barrels, this tequila is presented in a handblown glass replica of the very first Patrón bottle.

AGE Aged 10 years in a combination of American oak & French Limousin oak barrels.

**PROOF** 80 proof

AROMA Caramel, toasted oak, vanilla, burned orange, wood polish.

**TASTE** Spicy cinnamon, red pepper, walnuts, tobacco leaf, nutmeg.



## SOCIAL RESPONSIBILITY & SUSTAINABILITY

ur commitment to quality doesn't end when we ship out our tequilas. We believe in making the best tequila in the best possible way, and that also means giving back to the people, community, and environment essential to making patrón. Without them, we wouldn't be wha are some of the ways we make tequila with sustainability and social responsibility in mind.

#### **AGAVE SUSTAINABILITY**

SUSTAINABILITY — Limiting the environmental impact of our tequila production is, and always will be, something that we hold in the highest regard here at Patrón.

Without a continual supply of agave, there wouldn't be tequila, so we're proactively funding a study with a top agricultural research center in Mexico to ensure the sustainability of the Weber Blue Agave plant for the entire industry.



Tequila making on a large scale produces a lot of waste, including leftover agave fibers or bagazo. Rather than dispose of it in a way that could pollute local land and water, Patrón takes this agave waste, mixes it with concentrated stillage, and produces a nutrient dense compost. We compost 100% of this agave byproduct; In 2016, over 22,000 tons were turned into about 5,500 tons of compost that was used to grow produce in Hacienda Patrón's own organic garden. The compost also fertilizes the agave fields, and is used in fields, parks, and gardens that serve the community. We take in used agave fibers, free of charge, from 10 other neighboring distilleries.

In a pioneering effort for the industry, we commit to pay a minimum price to our agave growers to ensure their profitability, even during times of excess supply. It's simply the right thing to do.

## OTHER ENVIRONMENTAL RESPONSIBILITY

We invest heavily in minimizing our impact on the environment. In addition to our work with agave plants, our reverence for the environment extends to our very own backyard at the Hacienda Patrón distillery, where we recently transplanted 3,000 lime trees—rather than cutting them down—to make room for an expansion project. It was a complex and time-consuming project, but the alternative to destroy these beautiful trees was never an option.

We're also proud to be the first tequila distillery to install a natural gas pipeline as a main energy source, which helps reduce CO2 emissions. In 2016, this system reduced carbon dioxide emissions by approximately 200 tons.

#### ${\bf RESPONSIBLE\ EMPLOYMENT\ (\it PICTURED\ }$

FAR RIGHT) — Our employees are the heart of what we do, and we're firmly committed to creating a great working environment for them and investing in their future. This includes offering after-hours education and partnering with local universities to reduce costs for our colleagues interested in furthering their studies. We also offer flexible work hours and free employee transportation to and from the distillery every day.

COMPOST — 100% of our agave byproduct is composted. In 2016, over 22,000 tons were turned into about 5,500 tons of compost that was used to grow produce in Hacienda Patrón's own organic garden.





#### **WATER TREATMENT**

Tequila making is a water-intensive process, so it's only natural that Patrón implemented a state-of-the-art treatment system to reclaim clean water. During the production process, large amounts of water are mixed with the crushed agave resulting in a leftover liquid from the distilling process called "stillage." Rather than be discarded, this stillage is put through a reverse osmosis system designed by Patrón that recovers up to 70% of the usable water in the byproduct. The recovered water from the stillage is used throughout Hacienda Patrón in cleaning, gardens, and in the facility's cooling towers. In 2016 alone, about 24 million liters of water were reused throughout Hacienda Patrón. By reusing the water that goes into producing Patrón tequila, less is needed in the facilities and operations, and more is preserved for the earth.

Our guests at La Casona are also encouraged to help reduce water needs. Instead of offering an endless supply of plastic water bottles for visitors, we've moved to reusable water bottles that can be refilled at hydration stations around the grounds.

#### RESPONSIBLE EMPLOYMENT

Our employees are the heart of what we do, so we're firmly committed to creating a great working environment for all 1,600 of them. This includes offering an after-hours education program and partnering with local universities to reduce costs for our colleagues interested in furthering their studies. We also offer flexible work hours and free employee transport to and from the distillery every day.

## GLOSSARY

**GIVING BACK IN THE COMMUNITY** 

the community.

Noise pollution can be a big problem at distilleries of our size, and lessening sources of noise results in a more comfortable workplace. Patrón utilizes acoustic screens around the cooling towers at our facilities to reduce and contain the noise that goes out into the surrounding area to keep noise pollution low for both our workers and

We're proud to help support a variety of philanthropic and charitable organizations in our hometown and across the world. For example, in our local community of Atotonilco el Alto, Jalisco, we support a local food bank that offers essential supplies to over 1,000 families, and we work with two orphanages to help provide food, shelter and education. Since 2015, we've reforested or donated approximately 16,000 trees in Atotonilco el Alto, Jalisco, and helped with the restoration of Atotonilco's 250-year-old parish church. Many guests to the Hacienda volunteer alongside us on the final day of their trip.

On a global level, we're involved with multiple charitable endeavors to help fund food programs, disaster relief, civic organizations, and other important causes.

Through all these methods of lowering environmental impact, Patrón has become an industry leader in helping Mexico's environment. Reducing environmental impact on the community and country as a whole have earned Patrón a Clean Industry Certification and ISO 14001 Certified stamps of approval on our eco-efforts.

ABOCANTES - (pl. n.) Mellowing agents used in the Tequila blending process that can affect the flavor, texture, or color of the finished Tequila with the possible effect of simulating age. Approved additives include glycerin, oak flavor, sweeteners, and caramel coloring, and are allowed in reposado and añejo Tequilas in levels of up to 1% of the total volume. However, certain producers may interpret regulations to also allow the inclusion of abocantes in blanco Tequilas, especially since this inclusion does not have to be disclosed on the bottle's label.

AGAVE - (n.) A genus of flowering succulents indigenous to Central and South America, distinguished by their spiny, clustered leaves (pencas) and tall flowering stalks (quiotes). They have long been cultivated as a source of nourishment, for beverage production, and for their fibers used in a broad range of applications including rope, clothing, paper, and building materials.

AGAVE TEQUILANA - (n.) Also referred to as the Blue Weber agave, it is the only species of agave plant approved for Tequila production, favored for its relatively quicker maturation time, high concentration of sugar, and prolific asexual reproduction.

**AGING -** (v.) The slow transformation of a distilled spirit—frequently, but not always,

in oak—that allows it to acquire additional sensorial characteristics obtained through physical and chemical processes. It is also referred to as 'maturation'. It should be noted that according to the CRT, aging of tequila must take place in oak.

**AGUAMIEL** - (n.) The unrefined sap from the agave plant. The term translates directly to "honey water," and *aguamiel* has historically been fermented to make pulque.

ALEMBIC - (n.)

See Batch Distillation.

**AÑEJO** - (adj.) A class of Tequila that is aged for at least 12 months and not more than three years in a barrel with a maximum capacity of 600L (around 160 gallons).

**ANGEL'S SHARE -** (n.) The amount of spirit lost during aging/maturation over time as a result of evaporation through a porous, wooden container (frequently represented by a percentage of volume per year).

**APPELLATION OF ORIGIN -** (n.) Name of a geographic region that serves to designate a product that originates from that area; the quality and characteristics of the product are attributed to a particular geographical area, including the natural and human factors.

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**ASEXUAL REPRODUCTION IN AGAVE -** (v.) In agave plants, this is the process by which small genetic clones of the mother agave, known as pups or *hijuelos*, sprout from the mother agave's root system. Severing and transplanting *hijuelos* is one of the most efficient ways to cultivate agave for Tequila production.

**AUTOCLAVE -** (n.) A machine that is used to rapidly cook either agave  $pi\tilde{n}as$  or the juice

of raw, shredded agave, by simultaneously exposing them to heat and pressure. They drastically reduce both the cooking time of the *piñas* in comparison to traditional *hornos*, as well as the costs of production associated.

**AWARD T PROGRAM -** A program by the CRT to educate people from restaurants, bars, hotels and industry in general about the rules that govern Tequila.

**BACANORA -** (n.) A type of distilled spirit from agave from Sonora, protected by its own DO.

**BAGASSE** (BAGAZO)- (n.) The stringy, fibrous residue and dry pulp left after crushing and processing agave *piñas*, frequently referred to as "bagazo" as it's translated in Spanish. Depending on the distiller and quality of the bagasse, some portion of it may also be retained during the fermentation and/or distillation process(es). Bagasse, if properly processed, can be utilized as fertilizer.

**BATCH DISTILLATION -** (v.) Occuring in a pot style of still (Alembic) which may be made

of copper, stainless steel, wood, clay, etc. Distillation is completed in batches, and as such is by definition a less efficient process than continuous distillation.

BLANCO - (adj.) A class of Tequila that directly translates to "white" and refers to the Tequila received off the still after the second distillation (in the case of batch distillation), which can be aged for no more than 2 months in oak containers. However, these Tequilas are generally unaged and are also variously referred to as 'silver' or 'plata.'

**BLUE WEBER AGAVE -** (n.) See Agave tequilana.

**CABALLITO** - (n.) Another word for a small shot glass that translates to "little horse" and is typically used for drinking Tequila neat.

**CABEZAS** - (n.) Literally "heads", this refers either to the  $pi\tilde{n}a$  of the agave plant used to produce Tequila or mezcal, or to the first condensate collected during the distillation process that is frequently discarded (see Heads).

**CATEGORIES OF TEQUILA:** Tequila 100% de Agave and Tequila (see *Mixto*).

**CLASSES OF TEQUILA:** Blanco, Joven, Reposado, Añejo, and Extra Añejo.

**COA** - (n.) A sharp, flat metal tool attached to a long handle used by *jimadores* to shear the

leaves of the agave from the  $pi\tilde{n}a$  when harvesting the plant for Tequila production.

**cogollo** - (n.) The woody core formed at the base of a dense cluster of leaves at the top and center of an *agave novillo* (an agave that does not produce a *quiote*). It is often cut out and removed when breaking down *piñas*, as it's believed to impart bitter, tannic notes to Tequila.

colas - (pl. n.) Literally "tails", this is the last distillate to be collected during Tequila's distillation after the hearts. They consist of less volatile compounds, including various fusel oils and congeners that are largely separated from the final spirit during the distillation process. However, a nominal portion of them is inevitably retained.

**COLUMN STILL - (n.)** 

See Continuous Distillation.

**CONTINUOUS DISTILLATION -** (v.) An efficient distillation process that occurs in a column still, which can run continuously under equilibrium conditions; continuous distillation generally allows for more cost-effective Tequila production than batch distillation.

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**CORAZONES** - (pl. n.) Literally "hearts", they make up the middle section of a distillation

run, which is typically the part kept for redistillation (in the case of batch distillation), and ultimately consumption.

**CRT -** (n.) Consejo Regulador del Tequila, an organization founded in 1994 responsible for the oversight of Tequila production to ensure adherence to strict, legalized quality standards, including the legitimizing of individual Tequila distilleries and their products by assigning a specific NOM to each facility.

**DIFFUSER** - (n.) A modern, highly efficient piece of equipment that both shreds and cooks agave *piñas* rapidly. Many diffusers use a hot, acidic solution to quickly convert freshly shredded *piñas* into a liquid rich in fermentable sugars through the process of hydrolysis.

**DO -** (n.) Denominación de Origen, the term used to refer to products that are culturally

associated with specific regions of Mexico. It is a legal certification that recognizes geographical boundaries within which these products must be made in order to be labeled as such, to protect their integrity. Tequila, Mezcal, Bacanora, Raicilla, and Sotol all carry DOs; other DOs in Mexico govern products as wide ranging as vanilla, chiles, coffee and mangos.

**ESTIBA -** (n.) A time-honored method of stacking barrels in large pyramids for aging Tequila.

**EXTRA AÑEJO -** (adj.) A class of Tequila where the spirit is aged for at least three (3) years in a barrel with a maximum capacity of 600L (158 gal). There is currently no upward limit on how long this type of Tequila can be aged.

G GOLD - (adj.) See Oro.

HACIENDA - (n.) A large estate on a sizable plot of rural/agricultural land, typically seen in former colonies of the Spanish empire, that often operate as business enterprises such as mines, plantations, factories, and distilleries.

**HEADS** - (pl. n.) Also known as "cabezas", these are the first compounds created during

Tequila's distillation run. They largely consist of volatile substances not meant for consumption, and are generally separated from the final spirit during the distillation process. However, a small portion of them may be retained, and are noted for their strong fruity, floral or solvent-like aromas.

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**HEARTS** - (pl. n.) See Corazones.

HIJUELOS - (pl. n.) Small offshoots of the mother agave plant, sometimes referred to as 'pups' or 'baby agaves'. Hijuelos are harvested and replanted in new fields, the typical method of agave propagation in modern Tequila production.

HORNO - (n.) Literally "oven," used to slowly cook agave *piñas* over multiple days. Hornos are usually built from brick and heated by steam, but may also be made from dirt and heated by coals and rocks. They are the traditional precursors to modern *autoclaves*.

**HYDROLYSIS -** (v.) An essential step in Tequila production wherein the long chain carbohydrates present in agave are broken down into simple sugars that the yeast can consume and ferment. As evidenced by the word's root (hydro-), the breaking down of these chains relies on the presence of water molecules.

- **INULIN** (n.) Perhaps the most common long chain carbohydrate stored within the agave plant as a primary source of chemical energy and food. Inulin is converted into fermentable simple sugars by the process of hydrolysis.
- **JIMA** (n.) The process by which agave *piñas* are harvested that involves severing them from the ground and slicing off the leaves, or *pencas*.

**JIMADORES -** (pl. n.) Field workers who harvest agave *piñas*.

**JOVEN -** (adj.) A class of Tequila that literally translates to "young". This term can refer to either unaged Tequila blended with aged Tequila or 'mixtos' that have abocantes to imitate aging, which are more specifically known as joven abocado, gold, or oro (see *Oro*).

MEZCAL - (n.) A distilled product of agave; both an overarching umbrella term for all agave spirits (that includes Tequila), and a regional DO in its own right including the states of Oaxaca, Guerrero, Michoacán, Puebla, Guanajuato, Tamaulipas, Zacatecas, San Luís Potosí, and Durango.

**MIXTO** - (adj.) An unofficial name for the general category of 'Tequila' (as opposed to 100% de Agave Tequila) that may be made from up to 49% non-agave sugars, and may use *abocantes* to imitate aging or otherwise alter the aroma, texture, and/or flavor. Since

2006, 'mixto' Tequilas may be shipped in bulk and bottled in other countries.

**MOSTO** - (n.) The juice collected from crushing cooked  $pi\tilde{n}as$  that is subsequently fermented and distilled.

NOM -(n.) The Norma Oficial Mexicana (NOM) certification is a set of regulations and standards that are required by the Mexican government. In Tequila, it takes the form of a unique four-digit code assigned to a distillery that produces Tequila. The CRT certifies adherences to NOM, including the strict, legalized quality standards placed on Tequila production and bottling

ORDINARIO - (n.) The result of the first distillation in a batch process of Tequila that includes the *cabezas*, *Corazones*, and *colas* and are generally around 35-40 proof when accumulated.

oro - (adj.) Literally "gold" and also referred to as joven abocado, this is a class of Tequila that consists of 'mixtos' that have abocantes to imitate aging. Colloquially, this term is often used interchangeably with Joven.

PECHUGA - (n.) Mezcal that is redistilled with additional ingredients, including game, cured meats, spices, and dried fruit, often made for celebratory purposes or special occasions.

**PENCA** - (n.) The spiny leaves of the agave plant that grow around the  $pi\tilde{n}a$ . These are removed during the jima process.

**PIÑA** - (n.) Spanish for pineapple, *piña* refers to the center of the agave plant used to produce Tequila or mezcal, after the *pencas* (leaves) have been removed.

**POSTURAS** - (pl. n.) The number of times that a barrel has been used to rest spirit.

**PULQUE** - (n.) An ancient Mexican alcoholic beverage made from fermented the unrefined, uncooked sap (or *aguamiel*) of '*agave pulquero*'. It is a common misperception that Tequila is made by fermenting *pulque*, but Tequila is made from fermenting and distilling the juice of roasted agaves.

- **QUIOTE** (n.) The flowering stalk of the agave plant that, if allowed to grow, rises high above the *pencas* and flowers. When agaves are being grown for use in Tequila, the *quiote* is generally trimmed to prevent this process from taking place, as the *quiote* utilizes the plant's sugar reserves, making its *piñas* less suitable for fermentation.
- RAICILLA (n.) A type of distilled spirit from agave from Jalisco and Nayarit, protected by its own DO.

**REPOSADO** - (adj.) A class of Tequila that is matured for at least 2 months, but no more than 1 year in an oak container.

**ROLLER MILL -** (n.) A machine designed to shred, press, and extract juice from roasted agave *piñas*. Chunks of cooked agave pass through a series of metal rollers that crush them thoroughly. The shredded fibers are sprayed with water to release fermentable sugars after each set of rollers; the sugary liquid is captured and diverted to fermentation tanks.

SANGRITA - (n.) A popular drink served alongside Tequila, traditionally tomato- or pomegranate-based with salty and spicy components.

erally refers to when the *quiote* is allowed to grow, bloom, and be fertilized. The fertilized flowers yield seeds that can then be planted to produce new agave plants. When agaves are being grown for use in Tequila, the *quiote* is generally trimmed to prevent this process from taking place, as the *quiote* utilizes the plant's sugar reserves, making its *piñas* less suitable for fermentation.

SILVER - (adj.) See Blanco.

**SOTOL** - (n.) A distilled spirit from several species of the Dasylirion plant, an evergreen shrub similar to but not technically an agave. Made in Chihuahua, Coahuila, and Durango, Sotol is protected by its own DO.

TAHONA - (n.) A large, often volcanic stone in the shape of a wheel, used to crush agaves, releasing their sugar-laden juices. Believed to be in use since the arrival of the Spanish in Mexico, by the year 2000, the tahonα had all but been phased out in the Tequila making process in favor of more efficient processes like the roller mill and diffuser. Currently, the tahonα is enjoying a resurgence.

TAILS - (pl. n.) See Colas.

**TEQUILA ('TEQUILA REGULAR')** - A style of Tequila in which up to 49% of the sugars can be from a source other than agave (most frequently, sugar cane). Tequila can be exported in bulk to be bottled outside Tequila's DO.

**TEQUILA 100% DE AGAVE** - A style of Tequila in which 100% of the sugars used must come from blue Weber agave. It may only be bottled in Tequila's DO.

**VINAZA** - (n.) The remaining liquid in the still after the distillation process. This extremely hot, highly acidic liquid can have severe negative effects if introduced untreated into the environment.

# RECOMMENDED READINGS

#### **WEBSITES**

- » Tequila Matchmaker
- » Consejo Regulador del Tequila
- » In Search of the Blue Agave
- » Mezcalistas
- Wine Folly
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