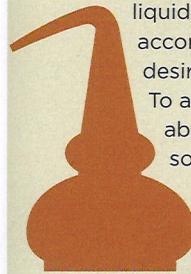


HOW WHISKY IS MADE

Each and every whisky is different, with details like the type of grains, yeast variety, method of distillation, and nature and duration of aging in wood affecting the final flavor and quality. However, all types of whisky have fundamental commonalities. Consult this diagram when considering the many factors employed to create your favorite whiskies with their unique flavors.



POT STILL

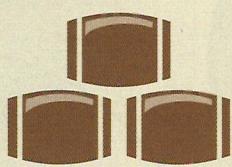
The liquid is heated in the bulbous base of the still, producing vapor that is collected in a narrow tube, the lyne arm, then cooled to convert back to liquid. Distillation using a pot still requires a batch process in which specific portions of the resulting liquid are preserved according to the desired flavor profile. To achieve an acceptable ABV, two—sometimes three—distillations are required.

DISTILLATION

Alcohol has a lower boiling point than water. The process of distillation heats the wash to create vapor. The vapor is then condensed back into a liquid with a higher percentage of alcohol.

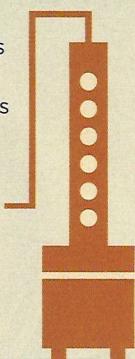
MATURATION

Nearly all new-make whisky, which is colorless, is placed in wooden casks, usually oak. Contact with the wood enhances the whisky's flavor and adds color, while also removing unwanted compounds. Regulations of the whisky-producing region may dictate whether the wood casks are new or used, what spirits they previously held, and their size.



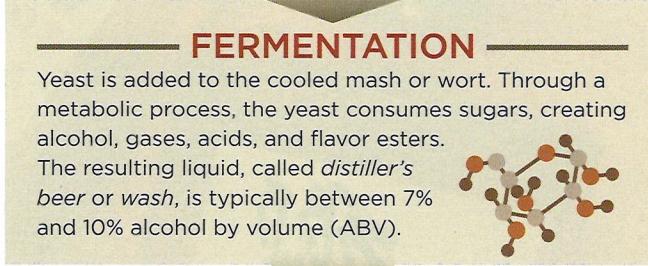
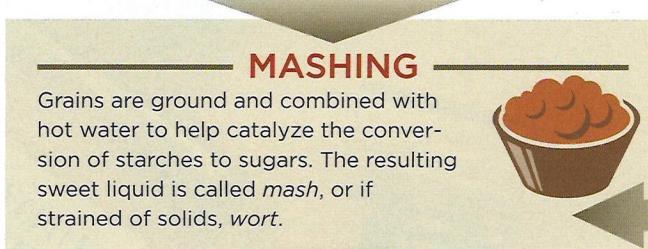
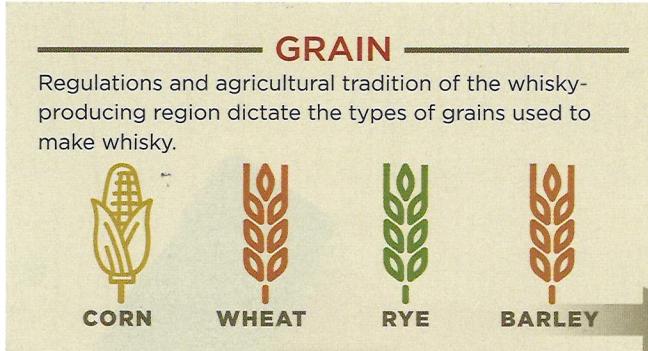
COLUMN STILL

A more efficient alternative to the pot still, the column still can produce a higher ABV. The distiller's beer is continuously heated and converted to vapor as it drops through the column, which contains a number of horizontal plates that the distiller's beer flows across as it descends. Small holes in the plates permit the upward passage of steam and spirit vapor, which is cooled and condensed back to liquid.



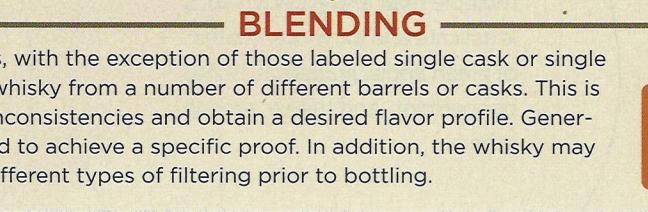
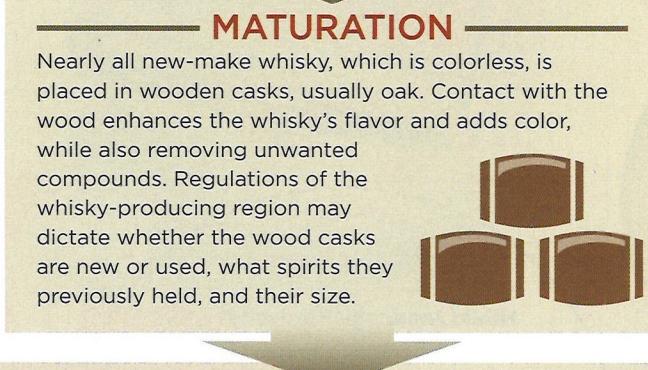
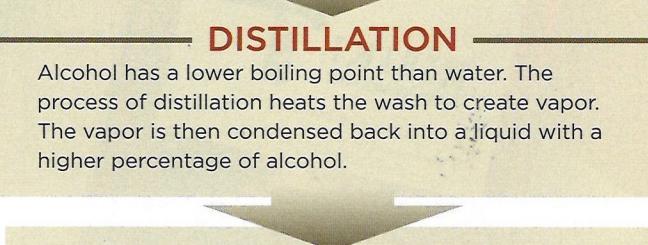
BLENDING

Nearly all whiskies, with the exception of those labeled single cask or single barrel, consist of whisky from a number of different barrels or casks. This is done to balance inconsistencies and obtain a desired flavor profile. Generally, water is added to achieve a specific proof. In addition, the whisky may be subjected to different types of filtering prior to bottling.



MALTING

Barley is generally malted—moistened and allowed to germinate. Once it germinates, the barley is heat-dried to stop growth, and may also be flavored by the smoke of smoldering peat if used in the drying process. This process creates enzymes that aid in converting other starches to sugars during mashing.



SPEAK THE LANGUAGE

PROCESS TERMS

GRIST A coarse flour made by milling grains.

MALT A cereal grain, usually barley, that has been germinated and then heated to stop growth.

MALTING The process of germinating and drying cereal grain to enable the grain's starches to convert to fermentable sugars.

MASH A mixture of grist and hot water that helps extract sugars before the yeast is added for fermentation.

MASH TUB The vessel used to combine grist with hot water to convert starches into fermentable sugars. Also called mash tun.

MASHBILL A listing of the various grain types within a mash as percentages.

WASH A product of fermentation, the low-alcohol liquid that enters the still. Also called distiller's beer.

WORT Mash that has been strained of solids.

STILL TERMS

CONDENSER Distilling apparatus that converts vapor to liquid through a cooling process.

CONGENERS Chemical compounds including aldehydes, esters, and acids that contribute to whisky's flavor.

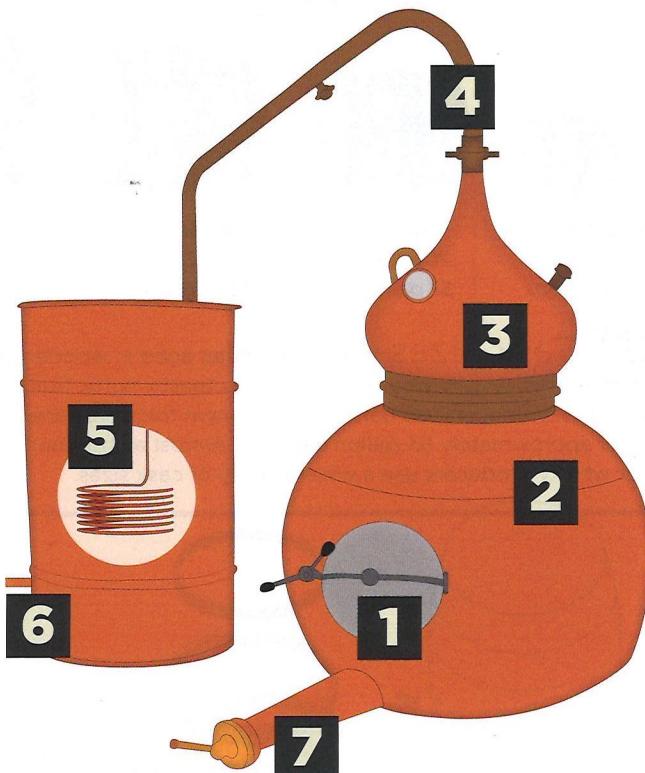
HEADS The first spirit to emerge from a pot still. High in methanol and other volatile compounds, heads are either discarded or redistilled. Also called foreshots.

HEART The middle, most desirable portion of the distillate to emerge from a pot still. Also called middle cut.

HIGH WINES Spirit that has undergone its final distillation and is ready for dilution and/or maturation.

LOW WINES Distillate produced after the first run of the still. It lacks enough ABV to qualify as whisky and is redistilled.

TAILS The final spirit to emerge from a pot still. It is low in alcohol and can be discarded or redistilled. Also called feints.



WHISKY STILLS

Traditional Pot Still

PRIMARY USE Scotch malt, bourbon, Irish malt, Irish single pot still, and many other world whiskies

1 Fermented mash or wash (first distillation) or low wines (second distillation) enter the still.

2 The heat vaporizes the wash, causing the alcohol vapor and steam to rise.

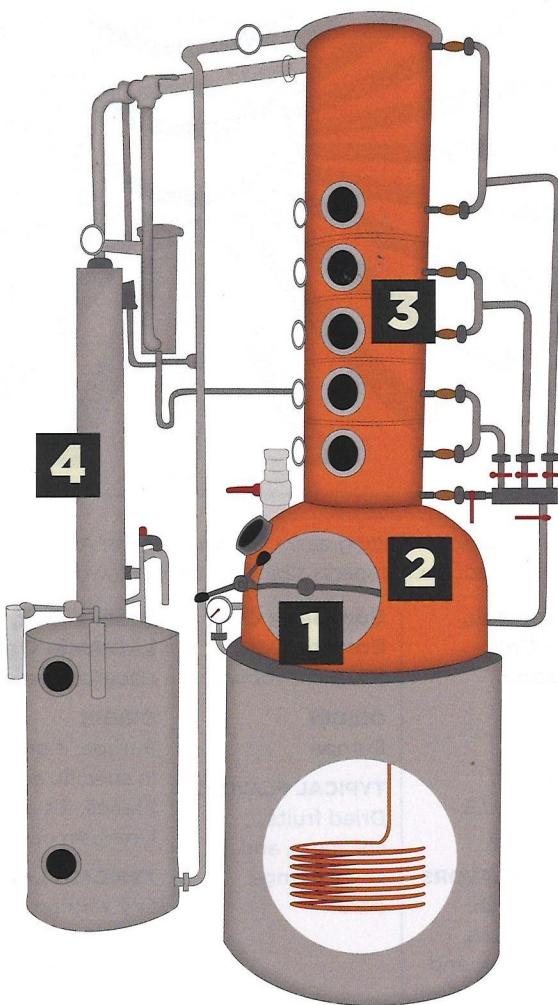
3 The bulbous shape makes the alcohol and water vapors condense, dropping down and rising back up again, stripping out impurities.

4 Vapor rises into the neck and lyne arm.

5 The vapor passes through a cold water condenser, becoming a liquid again.

6 The emerging distillate is separated into portions suitable for additional distillation, ready to become whisky, or to discard.

7 Residue is removed following each distillation.



Column & Hybrid Stills

PRIMARY USE Bourbon, rye, and other American whiskies, and grain whiskies from Scotland, Ireland, and elsewhere

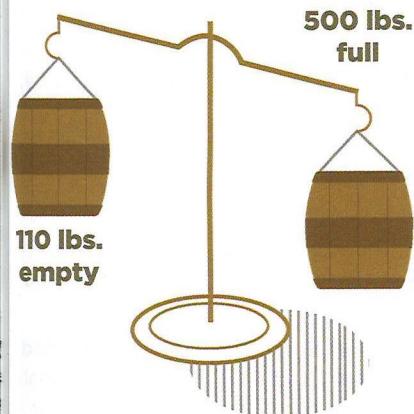
1 Fermented mash or wash enters the still at the top of the column or in the case of some hybrids (pictured) through a hatch.

2 Heat vaporizes the alcohol in the wash, causing it to rise.

3 A series of internal perforated plates continually separates alcohol vapor from heavier elements, allowing it to escape.

4 Vapor passes through the condenser, turning to liquid ready to mature.

MATURATION



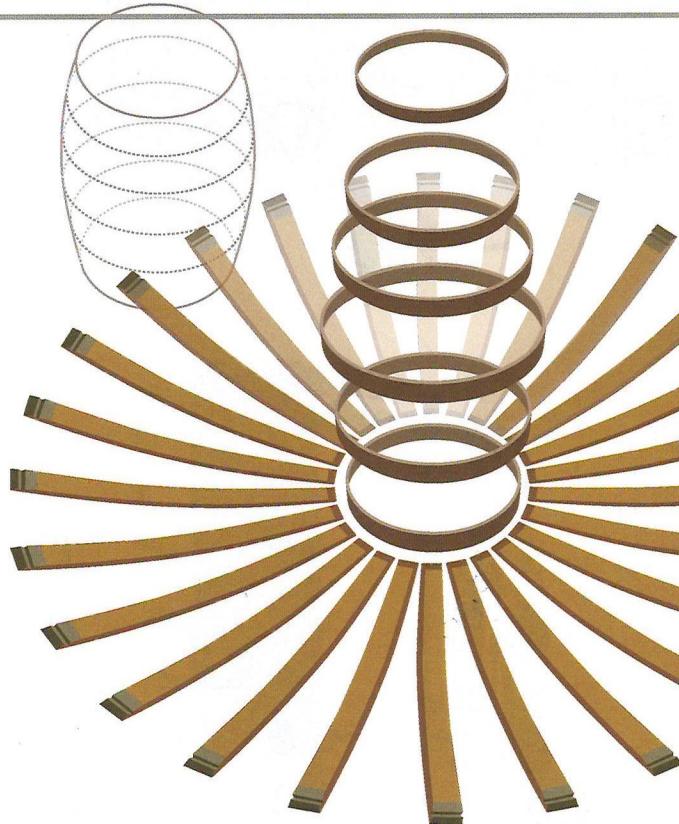
FAST FACTS Bourbon Barrels

The American bourbon industry is the primary source of used barrels for the rest of the world, given that bourbon must be aged in new, charred oak containers. However, there is no time requirement for aging bourbon.



FAST FACTS Cask Sizes

Whisky has been aged in wooden containers for centuries. Without time in wooden casks, whisky would lack its lovely toasted, nutty, fruity, and candy aromas and flavors. While many whisky drinkers use barrel as a synonym for cask, barrel more correctly refers to an American oak cask of approximately 53-gallon capacity. Almost all bourbon is aged in 53-gallon barrels, but scotch and other whisky producers use a wider variety of cask sizes.



SPEAK THE LANGUAGE

AGE The time whisky matures in wood containers. For nearly all types of whisky, the age statement on the label must reflect the age of the youngest whisky in the bottle.

ALLIGATOR CHAR Alternate name for #4 char, the deepest in general use.

ANGELS' SHARE Liquid that is lost to evaporation during cask maturation.

BARREL Sometimes used as a generic term for wooden casks. In the UK, barrel more correctly refers to a standard American oak cask of about 53 gallons. However, in the U.S., barrels for aging whiskey may be of any size.

CHAR The result of burning the inside of a barrel. Its degree is often referenced by 1 through 4, which correspond to the length of burn time and depth of the burn.

COOPERAGE A facility that constructs or repairs casks.

STAVE Individual piece of wood used in constructing casks.

STR Shave, toast, rechar. A process often applied to refurbish casks for further use.

TOASTING The gentle heating of a barrel or cask to degrade the oak's lignin and create flavors of sweetness and vanilla. Often used in conjunction with charring.

WAREHOUSE Structure where casks are stored. Also called rickhouse, rackhouse, or dunnage warehouse.

FAST FACTS Oak Types

Several species of oak are used in making casks for whisky, with American white oak and European oaks being the most widespread. Each imparts slightly different flavors.

White Oak (*Quercus alba*)

ORIGIN
United States

TYPICAL FLAVORS

The standard-bearer, offering vanilla, caramel, baking spices, and coconut

Mizunara Oak, Mongolian Oak (*Quercus mongolica*)

ORIGIN
Japan

TYPICAL FLAVORS
Oriental incense, with sandalwood, spice, and coconut

Oregon Oak, Garry Oak, *Garryana* (*Quercus garryana*)

ORIGIN
Northwest U.S. and Canada

TYPICAL FLAVORS
Dark and rich, with molasses, heavy cloves, and barbecue

European Oak, English Oak (*Quercus robur*)

ORIGIN
Europe

TYPICAL FLAVORS
Dried fruits, spiciness, and zesty orange citrus

Sessile Oak, Limousin Oak (*Quercus petraea*)

ORIGIN

Europe; if grown in specific areas of France, it's called Limousin oak

TYPICAL FLAVORS
Dry with prominent tannins and spice, plus softer vanilla and fruits

SCOTCH

Produced in Scotland and distilled to no more than 94.8% ABV

ADDITIVES PERMITTED

Caramel coloring

MINIMUM AGE

3 years
New oak or oak casks that previously held still or fortified wine, beer, and/or spirits that did not have added sweeteners, flavors, or stone fruits

CASK SIZE

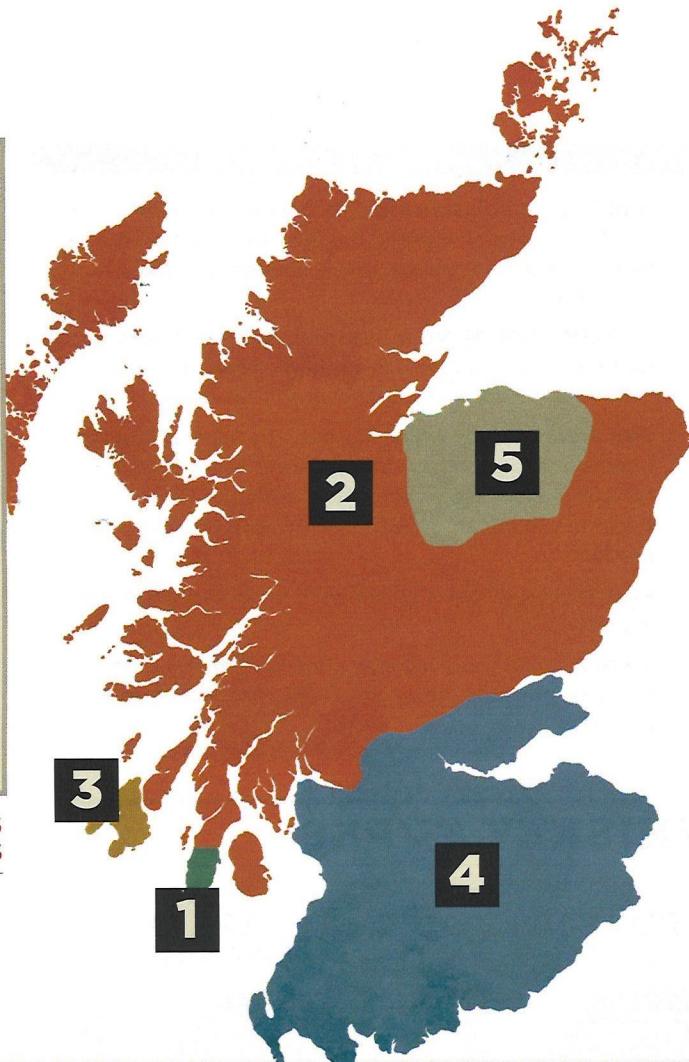
700 liter maximum

MINIMUM BOTTLING PROOF

80/40% ABV

SCOTLAND'S WHISKY REGIONS

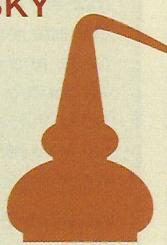
CAMPBELTOWN	1
HIGHLANDS	2
ISLAY	3
LOWLANDS	4
SPEYSIDE	5



SCOTCH WHISKY TYPES

MALT WHISKY

100% malted barley



Made in a pot still only

SINGLE MALT

Malt whisky from one distillery.

BLENDED MALT

Malt whisky from two or more distilleries.

GRAIN WHISKY

100% malted or unmalted cereal grains



Usually made in a column still

SINGLE GRAIN

Grain whisky from one distillery.

BLENDED GRAIN

Grain whisky from two or more distilleries.

BLENDED SCOTCH

A blend of one or more single malts with one or more single grain whiskies.

LABEL DECODER

AGE The time whisky matures in wood containers. For nearly all types of whisky, the age statement on the label must reflect the age of the youngest whisky in the bottle.

CARAMEL COLORING A flavorless, odorless colorant permitted as an additive in some whiskies, including scotch. Also called spirit caramel or E150a.

CASK STRENGTH Whisky bottled without dilution.

CHILL-FILTERED Chilled whisky is passed through a filter to remove particles in order to preserve clarity. Non-chill filtered whisky may become cloudy when water or ice is added.

FINISHED Whisky which has been transferred from its original maturation cask to a different cask. Finishing typically takes place over a short period of time, with the intent to impart specific flavors onto the final product.

INDEPENDENT BOTTLING A whisky that is bottled, sold, and often matured by a business other than the distiller. The label of an independently bottled whisky may or may not reveal the actual distillery.

PEATED Refers to barley or whisky containing the flavors of smoke from burning peat, a fuel source derived from compressed decayed vegetation.

PHENOL PARTS PER MILLION (PPM) A measure of peat smoke applied to barley during malting.

REGION Where a scotch is made; the Scotch Whisky Regulations recognize five distinct regions (see map), although a specific location, like an island name, may be included on a whisky's label.

SINGLE When used in conjunction with malt or grain, indicates the whisky is the product of one distillery.

VINTAGE A date indicating the entirety of the whisky was produced in a single year.

IRISH

Produced in Ireland and distilled to no more than 94.8% ABV. It must include malted barley, but may include other unmalted cereals.

ADDITIVES PERMITTED

Caramel coloring

MINIMUM AGE 3 years

CASKS PERMITTED New or used

CASK SIZE 700 liter maximum

MINIMUM BOTTLING PROOF

80/40% ABV

LABEL DECODER

AGE The time whiskey matures in wood containers. For nearly all types of whiskey, the age statement on the label must reflect the age of the youngest whiskey in the bottle.

CARAMEL COLORING A flavorless, odorless colorant permitted as an additive in some whiskies, including Irish. Also called spirit caramel or E150a.

FINISHED Whiskey which has been transferred from its original maturation cask to a different cask. Finishing typically takes place over a short period of time, with the intent to impart specific flavors onto the final product.

POITÍN Unaged pot-distilled spirit produced anywhere in Ireland.

SINGLE When used in conjunction with malt, pot still, or grain, indicates the whiskey is the product of one distillery.

JAPANESE

No legal definition exists. Japanese whisky must meet the minimum standards of whisky for the export destination. It may be produced from any combination of grain. Many Japanese whiskies include or are entirely made up of whisky imported from abroad.

ADDITIVES PERMITTED Not specified

MINIMUM AGE Not specified

CASKS PERMITTED Not specified

CASK SIZE Not specified

MINIMUM BOTTLING PROOF
Not specified

IRISH WHISKEY TYPES

MALT WHISKEY

100%
malted
barley



Single malt is the product of one distillery.

POT STILL WHISKEY

- min. 30% malted barley
- min. 30% unmalted barley
- max. 5% other grains

Single pot still is the product of one distillery.

GRAIN WHISKEY

- max. 30% malted barley
- unmalted grains, such as corn, wheat, or barley

Single grain is the product of one distillery.

BLENDED WHISKEY

Combination of any two or more of the above three whiskey types.



CANADIAN

Made from a mash of cereal grain or cereal grain products that are distilled and aged in Canada resulting in an aroma, taste, and character generally attributed to Canadian whisky. Note that any whisky from Canada may be labeled as "rye" regardless of its grain content.

ADDITIVES PERMITTED

May contain up to 9.09% of flavoring from wine or a spirit aged a minimum of 2 years in wood. Caramel coloring may be added.

MINIMUM AGE 3 years

CASKS PERMITTED Any type of wood, charred or uncharred

CASK SIZE "Small wood" (less than 700 liters)

MINIMUM BOTTLING PROOF
80/40% ABV

Whisky NOTES

A FREE e-newsletter from the Whisky Advocate experts.
Sign Up at: Newsletters.WhiskyAdvocate.com



BOURBON

Produced in the United States from grains, including a minimum of 51% corn, and distilled to no more than 80% ABV, then entered into new charred oak containers at no more than 62.5% ABV.

ADDITIVES PERMITTED None

MINIMUM AGE Not specified

CASKS PERMITTED

Charred new oak

CASK SIZE Not specified

MINIMUM BOTTLING PROOF

80/40% ABV

Other American Whiskey Types

Rye Made similar to bourbon, but includes a minimum of 51% rye with the permitted addition of coloring, flavoring, and blending materials limited to 2.5%.

Wheat Made similar to bourbon, but includes a minimum of 51% wheat with the permitted addition of coloring, flavoring, and blending materials limited to 2.5%.

Malt Made similar to bourbon, but includes a minimum of 51% malted barley with the permitted addition of coloring, flavoring, and blending materials limited to 2.5%.

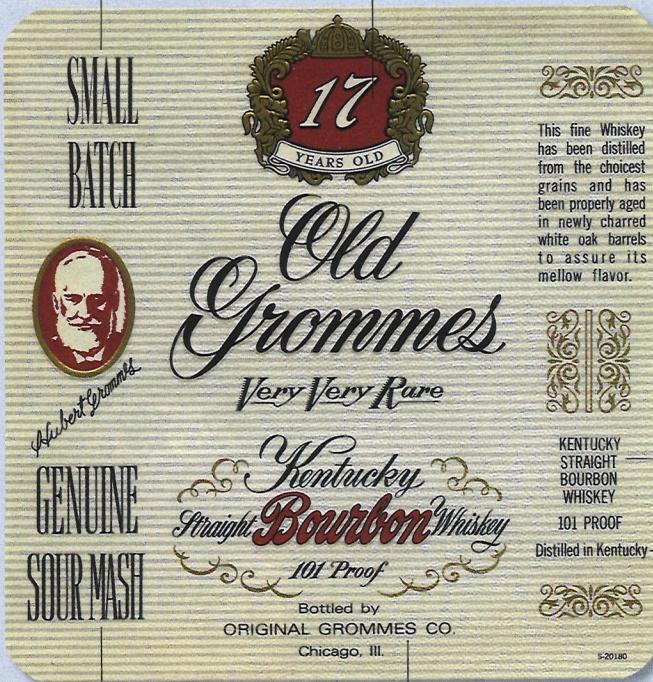
Tennessee whiskey

A product of Tennessee that meets the requirements of bourbon and in addition undergoes filtration through maple charcoal prior to barreling.

Single malt No legal definition.

SMALL BATCH Suggests choice barrels were selected, but there's no limit to the actual size of each batch.

AGE The time whiskey matures in wood containers. For nearly all types of whiskey, the age statement on the label must reflect the age of the youngest whiskey in the bottle. Bourbon aged less than 4 years must state the age.



SOUR MASH A fermentation technique that uses leftover material from a previous distillation to benefit the fermentation of the next; used by most bourbon distillers.

BOTTLED BY Or "made by" suggest the producer purchased and bottled the bourbon. "Distilled by" is reserved for only producers that actually distilled the spirit.

BARREL PROOF Whiskey bottled at or no more than two proof points below its alcohol strength when it emerged from the barrel at the end of maturation. Also referred to as cask strength.

BATCH NUMBER Indicates that the flavor can vary between batches.

BOTTLE NUMBER Not indicative of the contents in the bottle, but can help thwart counterfeits.

BOTTLED IN BOND A straight whiskey that was produced in a single distillation season by a single distillery, matured in a U.S. bonded warehouse for at least 4 years, and bottled at 50% ABV.

CHILL-FILTERED Chilled whiskey is passed

STRAIGHT Whiskey that has come off the still at no more than 80% ABV, entered into a new charred oak container at no more than 62.5% ABV, aged for at least 2 years, and is bottled without additives. If aged less than 4 years, the age must be stated on the label.

KENTUCKY
STRAIGHT
BOURBON
WHISKEY
101 PROOF
Distilled in Kentucky

5-20180

STATE OF DISTILLATION
Must be stated if it is different than the producer's state. Often indicative of a whiskey sourced, not distilled, by a producer.

through a filter to remove particles in order to preserve clarity. Non-chill filtered whiskey may become cloudy when water or ice is added.

FINISHED Whiskey which has been transferred from its original maturation cask to a different cask. Finishing typically takes place over a short period of time, with the intent to impart specific flavors onto the final product.

HIGH RYE Indicates rye is the secondary grain in a bourbon mashbill, at a higher than usual amount, generally at least 25%.

SINGLE BARREL One barrel producing a limited number of bottles, often offering a unique flavor.

WHEATED Indicates wheat is the secondary grain in a bourbon mashbill.