Making scotch

Scotch whiskey is traditionally made with just barley and water. Also referred to as malt whiskey, Scotch, in the beginning of the production process, requires barley grains to be steeped in water until they sprout. The germinating barley is generally spread on the floor of a malting house where it continues to develop over the course of a week or two.

The grains are turned over regularly during this malting period, using a “ paddle” to allow air to get at them and to encourage even development. The starch in the barley turns to sugar, and germination is stopped at the optimum time by placing the barley in an oven or kiln. Traditionally, Scotch makers used peat fired ovens to give the Scotch its peaty, smoky taste. Some distilleries continue to retain the peaty flavor of Scotch today by burning peat and blowing the smoke over the grain.

Once the barley is dry, it is milled to produce a floury substance called “ grist.” This substance is rich in sugar, and mixed with hot water to create a “ mash.” The mash is placed in a large cylindrical metal vessel or container called a “ mash tun.” In order to release the sugars, the contents of the mash tun are stirred regularly. At the conclusion of this process, a liquid known as “ wort” is produced. This hot, sweet, non-alcoholic liquid is transferred to a large wooden “ washback,” which is similar to a giant wooden pail that is commonly made from Oregon pine or Cypress, both of which are highly resistant to fungi.

The yeast is added in the washback to begin the fermentation process. During this process, the sugar in the wort is turned into alcohol as the solution bubbles and foams furiously before gradually slowing down. The

sugar is converted over a period of two to four days. At the end of this process, the alcohol content of the product is no more than approximately 8-9%. The Scotch is not ready, and so the liquid wash must be distilled down to the required alcohol content.

Distillation is the next major step in Scotch making. This process takes place in copper pot stills that have a distinctive, swan-neck shape. The shape of the stills and the length of the neck determine the character of the final product.

Typically, there are two kinds of stills involved in the distillation process: the wash still and the spirit still. The first is used to produce the first distillation, referred to as “ low wines.” This product is distilled for the second time in the spirit still before it is collected as the strong distilled spirit. This spirit is not useable, however. Hence, it is diverted into a receiving tank. The final product of the second distillation is not useable either. But it is saved to be added to the next batch of low wines.

The glass-fronted “ spirit safe” is where the spirit is tested with a hydrometer as it leaves the pot stills. In Scotland, this safe is heavily padlocked by the Customs & Excise to prevent any possibility of the distillery siphoning off the spirit in order to avoid the payment of legal duty on it.

Following this formality, the final spirit is collected in the receiving tank. It is now prepared to go into barrels for the next stage of the Scotch making process – maturation. Scotch whiskey is normally stored in barrels that have been previously used. It takes around three years at least to call it Scotch,

however. Maturation may take anything from three years to twenty years. Before it is matured, the Scotch is simply referred to as spirit.

During the process of maturation, around 2% of the spirit is lost each year due to evaporation. Once the malt whiskey has been matured for the required time, it can be bottled and labeled. However, if it is to be used as part of a blended whiskey, the master blender would “ nose” each whiskey to determine its characteristics and to ensure that the consistency of the specific blend is maintained.

Blenders may include in the final blend as many as thirty or forty different malt and grain whiskeys. The blender is also responsible for ensuring that a particular blend retains its consistency over a number of years. For this reason, the blender’s nose must be skilled.

Coloring is added at this point to the Scotch, and the drink is chill-filtered so as to remove the oils that cause cloudiness when ice is added. The prepared whiskey, whether blended or not, is then transferred to the bottling plant where it is bottled using automated methods. It is also noteworthy that some of the processes mentioned in the making of Scotch are now automated. As an example, barley may be turned or “ ploughed” with automatic paddles as opposed to manually during the grain germination process. The chief fermentation and distillation processes, however, have largely remained unchanged in the last couple of hundred years.

Bibliography

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