

Adjunct Ingredients & More...

Adjunct ingredients are fermentable ingredients other than malt. Examples are: corn, rice, sugar, honey and molasses.

Other ingredients like fruit, herbs & spices and wood can be added to create different flavor and aroma profiles.

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Hops

Hops are cone-shaped flowers that contribute balance to beer. They are added as a spice. Hops impart bitterness that balances the sweetness of malt, and can add a range of flavors and aromas, including floral, herbal, spicy, citrus and pine.

Many different spices have been used to flavor beer throughout history. But, hops became the spice of choice because of their unique flavors, aromas and preservative qualities.

Hops used by brewers come as either pellets or whole flowers.

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Malt

Malt gives beer its color, malty sweet flavor and aroma plus the sugars needed for fermentation. Malt can be produced from many different grains, but barley and wheat are the most common.

Maltsters create a variety of specialty malts that are used to make a wide range of beer styles, including pilsners, amber ales and stouts.

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Water

Water makes up 90-95 percent of beer. The flavor and mineral content of the water used interacts with the other ingredients and contributes to the flavor of the beer. Tap water can be filtered or boiled before brewing to remove undesirable flavors, such as chlorine, from the water.

Brewers sometimes add minerals to their brew water to simulate the water used where a particular beer style originated.

Common minerals used in brewing are: gypsum (calcium sulfate), calcium chloride, and Epsom salt (magnesium sulfate).

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Wort

Wort (pronounced 'wert') is the bittersweet liquid produced from mashing grains and boiling hops before it is fermented into beer.

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Yeast

Yeast is a living single-cell organism that uses sugar as food in its life cycle. In brewing, yeast converts sugar from malt into alcohol and carbon dioxide. Beer yeast comes in two main types: ale and lager yeast.

Homebrewers add either liquid or dry yeast to the wort, which is known as "pitching the yeast".

Common beer styles brewed with ale yeast: Pale Ale, India Pale Ale, Brown Ale, Porter, Stout, Scottish and Barleywine.

Common beer styles brewed with lager yeast: Pilsner, Bock, Oktoberfest and Munich Dunkel.

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The Brewing Process

MASHING: Crushed malt is mixed with hot water to create a mash. It is stirred for a controlled time at a controlled temperature, allowing natural enzymes to convert the starches in the grain to sugars.

Mashing creates a sweet liquid called wort which is lautered (strained) from the malt and sent to the brew kettle where it is boiled with hops. Homebrewers can skip the mashing process by using malt extract.

BOILING: Wort is brought to a boil in the brew kettle. Hops are added at various stages of the boil to provide bitterness, flavor and aroma, that balance the sweetness of the malt and add complexity. Boiling also serves to sterilize the wort and to evaporate off flavors.

FERMENTING: After the wort has cooled, it is transferred to a vessel called a fermenter. Yeast is added to the wort to convert the sugars into alcohol and carbon dioxide. Fermentation lasts 3 to 7 days. At this point, you are very close to a finished product: Beer!

AGING: Fermented beer is moved to a secondary fermentation container to age. Ales are generally aged 1-3 weeks, while lagers are aged at colder temperatures for several weeks to months.

FINISHING: Most homebrews are naturally carbonated with yeast in the bottle. The beer is briefly aged to develop carbonation and then it's time to...

Relax, Don't Worry, Have a Homebrew!



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