

Glossary

1. **Saccharification:** It is a process in which conversion into a simple soluble fermentable sugar by hydrolyzing a sugar derivative or complex carbohydrate.
2. **Cereal grains:** Cereal grain is any grass cultivated for the edible components of its grain (botanically, a type of fruit called a caryopsis), composed of the endosperm, germ, and bran. Cereal grains are grown in greater quantities and provide more food energy worldwide than any other type of crop; they are therefore staple crops.
3. **Hops:** Hops are the dried cone-shaped female flower of hop-plant *Humulus lupulus* (synonym: *H. americanus*, *H. heomexicans*, *H. cordifolius*).
4. **Carbonation:** Carbonation can refer to two chemical processes involving carbon dioxide: The dissolution in a liquid, also known as fizz or effervescence and the incorporation into chemical compounds.
5. **Brewing:** Brewing is the production of beer by steeping a starch source (commonly cereal grains, the most popular of which is barley) in water and fermenting the resulting sweet liquid with yeast.
6. **Saccharometer:** A saccharometer is a hydrometer used for determining the amount of sugar in a solution, invented by Thomas Thomson. It is used primarily by winemakers and brewers, and it can also be used in making sorbets and ice-creams.
7. **Wort:** The sweet infusion of ground malt or other grain before fermentation, used to produce beer and distilled malt liquors.
8. **Adjuncts:** Adjuncts are starchy materials which were originally introduced into the beer.
9. **Gelatinization:** The process of converting into a gelatinous form or into a jelly.
10. **Tannins:** A tannin is an astringent, polyphenolic biomolecule that binds to and precipitates proteins and various other organic compounds including amino acids and alkaloids.

- 11. Mutation:** In biology, a mutation is the permanent alteration of the nucleotide sequence of the genome of an organism, virus, or extrachromosomal DNA or other genetic elements.
- 12. Inoculum:** It is the substance or microbial culture used for the purpose of inoculation.
- 13. Gibberellic acid:** Gibberellic acid (also called Gibberellin A3, GA, and GA3) is a hormone found in plants and fungi. Its chemical formula is $C_{19}H_{22}O_6$. When purified, it is a white to pale-yellow solid
- 14. Kiln:** A kiln is a thermally insulated chamber, a type of oven, that produces temperatures sufficient to complete some process, such as hardening, drying, or chemical changes.
- 15. Brewer's spent grain:** Brewer's spent grain (also called spent grain, brewer's grain or draff) is the main byproduct of the brewing process, it consists of the residue of malt and grain which remains in the mash-kettle after the mashing and lautering process.