Malt – what is it?

Malt is the name given to grains after they have been sprouted and dried.

The sprouting for malt is usually to the point that the main shoot is approximately three quarters of the grain length. This amount of sprouting takes 3-5 days.

Examples of grains that are often malted are barley, wheat, rye and sorghum. Malt can be used in the form of malt grain, cracked malt grain or as whole malted grain flour. *Note that barley malt is sprouted in the husk, and the husk must be removed before it can be used in human food such as bread. Alternatively the malted barley in the husk can be steeped in water to extract the soluble materials. The resultant liquid is concentrated to a syrup or dried down into powder form, both syrup and powder form are known as* ***barley malt extract.***

Enzyme active malt is made when the sprouted grains are dried at warm room temperature, so that all the enzymes that come into action during the sprouting process are preserved. The most well known enzymes are the amylases, which are the starch degrading enzymes. Amylases continuously break starch down into sugars, which are useful as food for the microorganisms that ferment grains into beer and bread. The action of these amylases ceases when a dough becomes sufficiently acidic around pH 4. Phytase is another enzyme that is present in enzyme active malt. Phytase breaks down phytic acid and so releases minerals and inositol, which are both valuable nutrients for microorganisms and people. Also during the sprouting process there is an increase in B-vitamins, which assist in the release of energy from the sugars, for the microorganisms that ferment grains. *Note that enzymes are biological catalysts that help processes happen faster than they could without the enzyme.*

Diastatic Malt is another name for *enzyme active malt*. The name *diastatic malt* is derived from the old name *diastase,* for the *amylase* enzyme, which breaks down starch catalytically.

Roasted malt is produced when the sprouted grains are finally roasted at a temperature above approximately 120°F. Above this temperature the enzymes are destroyed, and the sugars that have been made by starch degradation by amylase will caramelize, according to the roasting temperature. This results in malt with interesting malt flavors and caramel colors. Roasted malt in the form of grain or ground into flour is used as a flavoring and coloring for beer and bread, and also as food for the microorganisms in bread dough.