



Information about Hops

Note: beer qualities are ultimately a matter of personal taste. In designing and crafting your next batch be creative! **Any** hop can be used for either bittering or flavor/aroma! Experience and careful observation will produce valuable wisdom.

■ Use Only the Best & Freshest

“Always protect your hops!” Hops degrade rapidly and will lose their potency if exposed to certain levels of Oxygen, heat, or light for even moderate periods. When storing hops at home use a freezer to retain freshness.

■ Discover Dry Hopping!

Do you want to experience absolutely incredible hop flavor and aroma? Try **dry hopping** — adding hops to the fermenter (or keg) **after** fermentation. Put 30 grams of pellets into your bucket or carboy after the first week of fermentation. You won't need a bag as the pellets will sink to the bottom over the next week. Dry hopping can also be done in a keg with hops in a fine mesh, nylon hop bag.

■ Grow Hops at Home!

Homebrewers with a green thumb may find satisfaction in growing their own hops. Called **rhizomes**, hops will grow in WA however they will not produce enough oils to use in your brewing.

■ What Are Hops?

Hops are the delicate female flower of the *Humulus Lupulus* plant, or **hop vine**. Considered the **spice** of beer, hops contribute flavor, aroma and bitterness. The bitterness is there to balance beer's malty sweetness. Without the bitterness you would have a cloying, overly-sweet drink.

■ Bitterness, Flavor, Aroma

By changing either the **quantity** of hops or **when** they are added you can completely control your beer's bitterness, flavor and aroma. Hops added at the **beginning** of the boiling process will contribute bitterness, but not much flavor or aroma. Added at the **end** of the boil, hops will contribute flavor and aroma, but not much bitterness.

■ Three Hop Categories

Most brewers struggle to discriminate the wide spectrum of hop flavors.

We have found that it helps to organize hops into three main categories.

1) German/Czech Hops—A deep, rich spiciness that is a classic characteristic of European lagers.

2) English Hops—Mellow and floral, they blend into the malt gently, unless used in large volumes.

3) American Hops—Pungent, and sometimes citrusy, with jump-out-of-the-glass aromas.

Note: *German or English hops grown in the U.S. will retain most native characteristics.*

■ Whole versus Pellet Hops

Whole hops are the entire hop flower. Pellets are whole hops that have been pulverized and compressed. The **majority** of homebrewers prefer pellets. Yet, good quality beer can confidently be made with either type. Pellets are much more easily handled, measured and stored. They will also dissolve into the boil faster, making them the preferred choice for additions at the **end** of the boil. Whichever type you select, we strongly recommend using fine mesh, nylon **Hop Bags** to minimize the amount of the leftover hops that enter your fermenter.

■ Alpha Acid (AA) Ratings

Alpha acid is the chemical component in hops that creates bitterness. The higher the alpha percentage the more bitter the hops. But don't be afraid to use hops with higher AA ratings; simply use less per batch. For example, when added at the beginning of the boil, 55 grams of, say, Northern Brewer hops with a 7.5% AA will yield the same bitterness as 28 grams of Magnum hops with a rating of 15%AA. We list the typical Alpha Acid content for each hop.

■ Which Hop Should I Use?

Some hops are better for bittering, some are better for flavor/aroma, and some are actually **dual purpose**. Dual Purpose hops can be used for either bittering and/or flavor/aroma. The recipes you may have, along with our product descriptions, can help guide your choices.

■ Tips

Some of our customers have been experimenting with different hop schedules while brewing. Many are starting to add their bittering hops towards the **END** of the boil for the last 20 minutes, rather than at the beginning for a full 60 minutes. To those that swear by this new method, the technique gives a smoother bitterness and more aroma.

■ Hop Additions

Experiment with different methods of dry hopping (adding hops to the beer Post-Ferment to achieve more flavor and aroma). Try removing some beer and making a slurry with your hops before adding them into your fermenter. This will remove oxygen from the pellets, and some people think it provides a smooth flavor addition