

Hey there! My name is Ruthie Dixon and I am the head of Customer Service at Yakima Valley Hops in Yakima, Washington in the United States. I have worked in the hop industry for about 4 years. For those of you who don't know Yakima Valley Hops, we're the retail partner of Barth Haas and we sell to distributors like Brewshop.no, commercial brewers, and home brewers online. We ship hundreds of orders each day to home brewers in the United States and get a lot of questions about hop storage and hop oxidation.

Here are some tips on how to avoid hop oxidation and what to look out for –

Source

Sensory

Storage

Suggestion

First, buying hops from a reputable source is key – transparency is necessary to ensure you're getting hops that have been stored properly and you know the crop year of those hops. If the hops you're purchasing don't say when they were grown, that should be a huge, red flag. Reputable distributors and hop vendors are mindful of the crop year and quality of the hops from the grower. Good vendors do their best to get hops from trusted farmers who prioritize the ideal harvest window for each variety to get optimal oil content. Once the hops are harvested, kiln-dried, and put in bales they can sit baled for a few months in cold storage before they're pelletized. Hops are tested for oil content after baling and then tested again when they are pelletized. Once hops have been pelletized, tested, and vacuum sealed they can sit in storage for years.

We ship hops to distributors all over the world and many countries require an expiration date on the goods that we are shipping. Now, there is no hard and fast rule about when hops expire, but we recommend using them within 5 years of when they were pelletized though we are finding that hop pellets that have been properly stored and have not had exposure to light and oxygen, can last much longer than 5 years!

Second thing to note about using your hops is through sensory analysis.

Sight: the hop pellets should be green. If they've turned brown, that can be a sign the hops have lost their pungency and potency.

Smell: Hops take on a cheesy smell when they have been exposed to too much oxygen. I sometimes can pick up a scent of wet, brown paper when hops are no longer good to brew with. Sometimes, the hops seem to have lost much of their scent altogether.

If you've been brewing awhile, you know the 'off' scents of hops all too well. It's rare, but there are sometimes defective packages that cause hops to be off. We never ship a bag that has a leak but recognize shipping can damage bags and encourage our customers to check on their shipments as soon as they arrive to avoid hops going bad because of damage in shipment.

Third thing to keep in mind is storage. Storing hops properly is key to be using them for a brew or two. Some hops are universally used in beers and you'll find yourself buying those varieties more often (The C Hops come to mind: Cascade, CTZ, Citra, Centennial, and Chinook). If you've got leftover hops and you know you will want to use them down the road, a vacuum sealer is key. I store mine in airtight glass containers in the freezer for later home brews, but the batches I brew tend to be pretty small compared to some of our commercial brewers so storing a couple ounces of hops doesn't take up too much space.

At our facility, we store and ship all 5 kg and larger sizes in nitrogen flushed mylar bags which is the industry standard. If you've ordered from our retail site, you may have received home brew sizes in small, vacuum-sealed mylar bags which is a huge space saver for us and the bags we use can be resealed by home brewers which has an added benefit. Both packaging options are perfectly acceptable, but nitrogen flushed packaging can be applied to a lot of different shapes and sizes. For example, the hops we can are flushed with nitrogen because vacuum sealing the cans would compromise the integrity of the can itself.

At Yakima Valley Hops, we keep our hops at freezing temps (0 degrees cel.) and do our best to not keep hops any longer than 2 previous crop years – but unofficially, using previous crop year hops is completely fine if the hops are stored correctly for the entirety of their pelletized lives.

Like I said before, we ship hops all over the world and quite a bit to South America where hops can sit on a shipping vessel for up to 6 months. While I don't recommend storing your hops this way, experience has taught me that even in these situations, the hops perform well, and we have not had any negative feedback about hops degrading despite their long journeys. Most of the feedback we get is from homebrewers who are worried about hops sitting in hot warehouses, being in direct sunlight, or being exposed to oxygen for long periods of time. While all these things can seriously degrade hops, as the brewer, use your best judgement and engage in some sensory analysis of your own. Since you likely don't have a lab and can't test the hops, it helps to have some older, possibly oxidized hops around for comparison even.

Fourth point, Suggestion. A little background on me, I used to work in the wine industry and one thing I learned about teaching folks about wine was that the power of suggestion was often more powerful than our own senses. You see when a bottle of wine goes back it's often because of a faulty cork and often it is imperceivable to the average wine consumer, but the moment one person says wine has "corked" or is light struck, or has had too much exposure to heat, everyone tends to agree – even when the wine is fine. The power of suggestion is so strong, you can convince yourself something is off. The point there, be aware of your own possible bias.

We have pulled entire lots and had them retested for oil content, we engage in our own sensory analysis, and we do our absolute best to be fully transparent with our customers. That being said, we still get daily questions, concerns, and comments from home brewers about the quality of their hops.

Hop degradation is inevitable, but it's not immediate. Hops degrade over time and even in less-than-ideal conditions can take months for there to be appreciable degradation.

Don't be afraid to ask your vendor how they store hops, where they get their hops, and do they share crop year dates and oil content information. If you're mindful of these things and your vendor is transparent with you, you're in good shape.