

Hard Seltzer FAQ & Example Recipe

FREQUENTLY ASKED QUESTIONS

Q: What fermentable should I use? What are the differences?

A: Any sugar that is readily assimilable by yeast cells can be used, for example: sucrose, dextrose, brewers crystals, candi syrup, rice syrup solids, and agave syrup. Different fermentables will lead to a different finished product – agave gives a more distinct flavor, brewers crystals and rice syrup solids give more body, and dextrose gives the most neutral flavor profile. Adapt fermentables based on the desired outcome.

Q: What yeast should I use?

A: We highly recommend the Pathfinder line of yeasts for seltzer production. TY Pure is ideal for neutral flavor profile, and is the product we recommend as the all-in-one, go-to, seltzer solution. A neutral brewing strain, like Fermentis US-05, or a neutral champagne-style wine yeast, like Nouveaux Ferments, Pinnacle Bubbly, or Premium® Fructo, used in conjunction with the appropriate nutrients such as N-Pure Seltzer Nutrient. Please visit bsgcraftbrewing.com/hard-seltzer for more info.

Q: Should I add nutrient?

A: Yes, a well-rounded nutrient is essential for hard seltzer as sugar lacks the nutrients required for a healthy fermentation. We recommend Pathfinder N Pure Seltzer Nutrient products which both contain all the nutrients required for a healthy fermentation. Please note: Pathfinder turbo yeast products already include nutrient, and do not require supplemental nutrient additions.

Q: Do I need to use an enzyme?

Amylolytic enzymes aid fermentation by breaking down larger starch/sugar chains into smaller, more readily-assimilable simple sugars. If your fermentable base is already made up of simple sugars (as with the list above), there is no need to add an enzyme. If your fermentable base includes some portion of malt or malt extract for a flavored malt beverage (FMB), the addition of some exogenous enzymes may be beneficial – however, keep in mind that if enzymes are added during fermentation, the beverage will need to be pasteurized in order to halt enzymatic activity.

Q: What kind of filtration system do I need?

A: If not using carbon filter sheets as described above, for final filtration we recommend AF 101H and AF ST130 sheets; AF ST130 isan aseptic sheet.

Q: How is carbon used in seltzer production?

A: Activated carbon can be used post-clarification to help remove color and/or yeast-derived aromas, especially sulfur compounds. BSG carries Filtrox depth filters with activated carbon in both 40 cm x 40 cm sheet and 16" lenticular formats. Powdered enological carbon is another option from BSG that can be added to seltzer in a tank and allowed to settle or in-line during powder filtration in a pressure-leaf filter.

Q: Is CO2 bubbling an effective method of aroma stripping?

A: Yes, scrubbing the base with by bubbling CO2 through a carbonation stone helps to volatilize and strip fermentation byproducts and clean-up the aroma.

Q: Do I need a RO system?

A: RO water is not necessary – use the same treated water you would use for all your other brews. Phosphoric acid or any otherfood-grade acid can be used to adjust pH in the kettle if needed.

Q: What else do I need to add? Flavors, acids, preservatives?

A: Scrubbing the base with CO2 using carbonation stones will help volatilize fermentation byproducts and clean up the aroma. Adjust with acid for flavor and for reducing the pH to help with microbial stability. Kerry fruit flavors and extracts are ideal as flavorings because they are easy to dose post-fermentation; many do not contain fermentable sugars (please refer to product pages on our website for fermentability). Flavors and volatile ingredients should be added after the product has been fermented.

Q: Do I need to add hops?

A: Your local laws and brewing regulations may require some inclusion of hops for the product to be classified as beer, rather than cider, wine, or something else. For more information please consult with your local regulatory agency. If including hops in your seltzer: hop pellets can lead to a non-light stable product – take suitable precautions to protect the productfrom light.

Due to reactivity, DO NOT mix acids and preservatives when adding them to the product. If backsweetening or using flavors that contain fermentable components, be sure to take necessary precautions to prevent refermentation.

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RESOURCES FOR REGULATIONS & LABELING

Please note that federal laws and regulations apply to flavored malt beverages as well as hard seltzers and sodas made without malt or hops. TTB and/or other regulations should always be consulted to ensure compliance.

TTB Ruling 2008-3: Classification of Brewed Products as "Beer" Under the Internal Revenue Code of 1986 and as "Malt Beverages" Under the Federal Alcohol Administration Act - www.ttb.gov/images/pdfs/rulings/2008-3.pdf

EXAMPLE RECIPE - PINEAPPLE SELTZER (10 BBL)

Target OG: 9°P Target FG: 0°P Target ABV%: 4.9

Recipe Component	Ingredient	Quantity for 10 bbl
Sugar	Clear Belgian Candi Sugar	239 lb
Yeast/Nutrient - Option #1 (most neutral)	TY Pure Turbo Yeast	8.8 lb
Yeast/Nutrient – Option #2	US-05 (or other house yeast) + N Pure Seltzer Nutrient	935g yeast + 1.76 kg nutrient
Water	Standard treated brewing liquor	Approx. 280 gallons

PROCESS:

- Blend all ingredients except yeast in kettle, turn on heat and stir to dissolve sugar.
 Once sugar is dissolved, boil solution for 20 minutes. Check gravity and adjust if needed.
- Transfer to fermenter through heat exchanger and cool to 68°F. Oxygenate solution. DO levels up to 40 ppm are used for clean fermentation; levels vary by strain and sugar media OG.
- · Hydrate and pitch yeast. Fermentation should be complete within approx. 5-7 days.
- · Adjust sulfur compounds and color post-fermentation if needed filter with carbon, or bubble CO2 through the fermented base in the bright tank to help scrub fermentation compounds.
- Add stabilizer and flavoring (below), carbonate to 2.9 vol., and enjoy!

Recipe Component	Ingredient	Quantity for 10 bbl
Stabilizer	Potassium sorbate	0.5 lb
Flavoring	Pineapple Natural Flavoring	0.9 gal