**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 give more body, dextrose gives the most neutral flavor profile. Adapt fermentables based on the desired outcome.

**Q: What yeast should I use?**
A: We recommend a neutral champagne-style wine yeast like Nouveau Ferments, Pinnacle Bubbly, or Red Star Premium Cuvee. Distilling yeasts like Red Star DADY and the Pathfinder Turbo line are also good options. Please note: turbo yeast products already include nutrient, and do not require supplemental nutrient additions as described below.

**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 Superfood® or Yeastex® products which both contain all the nutrients required for a healthy fermentation.

**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: Should I add carbon?**
A: Activated carbon can be used post-fermentation to help remove color and/or yeast-derived flavors – if using a sheet filter system, we recommend the Filtrox Activated Carbon Filter. If not, enological carbon can be used.

Another method to reduce fermentation-derived flavors is scrubbing the base with CO2 using carb stones to help volatilize fermentation byproducts and clean up the aroma.

**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 is an aseptic sheet.

**Q: Do I need an 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 other food-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 carb stones will help volatilize fermentation byproducts and clean up the aroma. Adjust with acid for flavor and for reducing pH to help with microbial stability. Flavors and volatile ingredients should be added after the product has been carbonated.

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.
Frequently Asked Questions Continued

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 product from light.

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.


Example Recipe – Pineapple Seltzer (10 bbl)

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

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity for 10 bbl</th>
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<tbody>
<tr>
<td>Sugar</td>
<td>Clear Belgian candi sugar</td>
</tr>
<tr>
<td>Yeast/Nutrient – Option #1</td>
<td>TY48 Turbo Yeast</td>
</tr>
<tr>
<td>Yeast/Nutrient – Option #2</td>
<td>Pinnacle Bubbly Yeastex® 82</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>Standard treated brewing liquor</td>
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</tbody>
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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 fermentor through heat exchanger and cool to 68°F. Oxygenate solution.
- 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 brite tank to help scrub fermentation compounds.
- Add stabilizer and flavoring (below), carbonate to 2.9 vol., and enjoy!

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Quantity for 10 bbl</th>
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</thead>
<tbody>
<tr>
<td>Stabilizer</td>
<td>Potassium sorbate</td>
</tr>
<tr>
<td>Flavoring</td>
<td>Pineapple natural flavoring</td>
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</tbody>
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