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[BSHB] CooperSdk, Six Tips for Crystal Clear Beer

1 meddelelse

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2. nov. 2011 04.10

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BeerSmith Home Brewing



Crystal Clear Beer

A bright, sparkling clear beer is highly prized by beer drinkers, yet clear beer can be elusive for the average home brewer. Commercial brewers use fining agents, filtering, and pasteurization techniques to keep their beer crystal clear. While filtering is sometimes used by advanced brewers, much simpler techniques can help improve your clarify. Using a few simple tips, it is not difficult at all for home brewers to match the clarity of commercial beer.

Before we jump into the tips, lets take a quick look at the main causes of cloudiness in beer. Cloudiness generally comes from one of three sources: tannins, proteins and yeast. Tannins are naturally occurring elements of the barley grain husk that is extracted along with sugars during the mashing process. Proteins come both from dark grains and also from certain non-barley grains including wheat, oats and flaked barley.

Proteins enhance the head retention and body of the beer, but also hurt the clarity of the beer. It is a delicate balance to achieve a full bodied beer without excessive protein. Finally yeast itself is present in the beer during fermentation and will remain suspended in the beer for some time. Most yeast will eventually precipitate to the bottom of the beer, but it takes considerable time for many yeast strains. Tannins, proteins and yeast also contribute "young" off flavors to the beer, so the quicker you can clear your beer the sooner you can enjoy it!

1. Select Lower Protein Grains

Proteins enhance the body of your beer, but can hurt clarity. Save high protein adjuncts like wheat, flaked barley and very dark malts for wheat and dark beers where clarity is not a significant consideration. If you

5. Add a Fining Agent

A number of fining agents can be added to the finished beer that will aid in clearing the beer quickly. These agents work by attaching themselves to the yeast, tannins and proteins to help them precipitate to the bottom of your fermenter or bottle more quickly. One easily obtained ingredient is clear, plain gelatin from the grocery store. Dissolve it in a few cups of warm sterile water and add it to your secondary fermenter a few days before bottling. Another personal favorite of mine is polyclar. Mix it with a little water and add it to your secondary fermenter a few days before bottling or kegging.

6. Cold Store (Lager) your Beer

Storing beer under refrigeration, called laagering, helps to clear beer rapidly. At lower temperatures it is more difficult for the yeast, tannins and proteins to remain suspended. Cold stored beer will clear much more rapidly than beer stored at room temperature. Note that if you

are brewing a light beer where clarity matters, choose two row pale malt or pale malt extract base and add only enough high protein darker malts to achieve the desired color and body.

2. Use Irish Moss at the End of the Boil

A few pinches of Irish Moss at the end of the boil can aid the clarity of your finished beer considerably. Irish Moss is a charged adjunct that actually helps tannins and proteins in the hot wort coagulate and quickly fall to the bottom of the boil pot while cooling the beer. If you drop a small amount of Irish Moss in your brew you can actually see the proteins and tannins coagulate into little lumps at the end of the boil.

3. Cool your Wort Quickly

Use an immersion or counter-flow chiller to cool your beer as quickly as possible. If you take your wort from boiling to fermentation temperature quickly, the tannins and proteins will form clumps, fall out, and form a thick layer of trub at the bottom of your boiler. The quicker you can cool the wort, the more dramatic the effect. The less tannins and suspended proteins, the clearer your beer will be. Ideally you would like to cool a boiling 5 gallon batch to room temperature in 15 minutes or less.

4. Choose a Yeast High in Flocculation

Flocculation is defined simply as the rate at which a particular yeast strain will fall out of the beer once fermentation is complete. If you choose a yeast strain with a high flocculation rating, it will clear much more quickly than one with a low flocculation rate. Flocculation should not be your only consideration, but if you have a choice, pick a yeast strain that both matches the style of your beer and has medium to high flocculation.



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are bottling or naturally carbonating a keg, you need to wait for the beer to become fully carbonated before laagering. Otherwise laagering may slow or kill the yeast resulting in a poorly carbonated beer.

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