

Smoked Beer

Or

How I Learned to Stop Worrying
and Love the Reek

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The Origin Story

&

What to Expect from Smoked beers

What is Smoked Beer?

- Why does it taste like that?
 - History of kilning malt – Historically, almost all malt was unavoidably smoked during kilning
- How does it taste like that?
 - Smoke flavors the malt during kilning after malting is done. (can flavor finished malt as well)
- Why would anyone still do that?
 - ‘Cuz it tastes goooooood! (to some)

Tasting Smoked Beer

- Balance and the Base Style
 - A good smoked beer should be both a good example of the base style and a good expression of the smoke character (low or high intensity)
 - The smoke flavor should be clean and pleasant, not rife with creosote, ashy notes, or burnt characteristics
 - The smoke and beer flavors should balance and work well together, not clash.

What are the Common Smoked Beers?

- Classic Bamberg Rauchbier (Franconia)
 - Usually thought of as a Marzen or Bock
 - Also made are many regional styles like Weizen, Dunkel, Schwarzbier, Pils.
- Nowadays, Smoked Anything
 - Porter, stout, Scottish ales, gueuze, mild...
 - I have not tried a smoked triple IPA yet...

Need Some Other Historically Smoked Beer Styles?

- Gratzer
 - 100% Oak Smoked Wheat malt (traditionally)
 - Daniels & Larson:
 - 3 lbs Oak Smoked Wheat Malt + 3 lbs Pils Malt
 - (Or could improvise with: 50% Bamberg Rauch Malt + 50% Wheat Malt, not so traditional)
 - 1.028 OG, 1.012 FG, 3.7% ABV, 30 IBU, 158°F mash temp, Ale yeast
- Other Historical Styles (See 2015 BJCP Style Guide)
 - Lichtenhainer
 - A sour, smoked, lower-gravity historical German wheat beer. Complex yet refreshing character due to high attenuation and carbonation, along with low bitterness and moderate sourness.
 - Piwo Grodziskie
 - A low-gravity, highly-carbonated, lightbodied ale combining an oak-smoked flavor with a clean hop bitterness. Highly sessionable.

Smoked Beer Recipes – A Few Tips

- Make a good version of the base beer, and substitute some smoked malt into it.
- Balance is key!!!
 - Pre-taste a smoked malt ‘tea’ and figure out the % smoked malt to use.
- Beware clashes (with phenolic yeasts and maybe with big hop flavor).

Making Smoked Beer:

Varieties of Smoked Malt

- German: The Bamberg Rauchmalt (Weyermann)
 - Beech wood smoked, mild enough to use up to 100%
 - Scottish: The Peat Smoked Malt (Simpsons, others?)
 - A few ounces of The Peat Reek used to do, but seems to be toned down now. May be able to use more.
 - Cherry wood smoked malt (Briess)
 - more strong stuff
- or
- Smoke your own! (you are a home brewer after all).

Smoking Your Own

(Getting Technical)

Smoking Your Own Malt

- What Kind of wood to use?
 - Any wood good for food smoking should work
- Hardwoods – Good to Use:
 - Especially fruit/nut trees, oak, hickory, maple, alder, beech
- Softwoods (conifers) – Avoid these:
 - Nasty terpene flavors
 - Juniper might be OK though.
- Often 10-20% of a home-smoked malt is all you will need in your recipe.

Smoking Malt – Bringing The Heat

- Wrong Heat Sources
 - Smoldering fire – Bad: makes Creosote, not pleasant.
 - Very Hot fire – bad – makes lots of toxic PAH's
 - Also, remove bark from wood chunks before use
- What heat source is just right?
 - Clean burning wood coals/fire
 - Banked coals to put your wood chips/chunks onto
 - Electric heating elements – properly used.
 - Can also cold smoke with separate chamber for smoke generation (like a side box smoker).

Smoking Malt

- No Chlorine! Can make Chlorophenols (Nasty flavors!!)
 - Use Campden tablets or Potassium Metabisulfite to treat ALL water to remove chlorine & chloramine.
 - This applies to brewing/sparging water, to water used to wet the malt during smoking, and any other water that touches these beers.
- Use a screen. Use two Screens:
 - To keep out tar, ash, & soot (which carry PAH's, & other nasty flavors). Also baffles/spreads out the smoke.
 - 16+ gage mesh stainless or copper is best, Use 2 layers.
- Wet the malt:
 - Smoke sticks best to water, not to dry (malt) surfaces
 - Must dry the malt afterwards. 180-200°F/a few hours to overnight in an oven with the door cracked open. Don't start a fire though!

Smoking Malt

- Hot smoking
 - Will also toast/roast your malt. May get an amber/brown malt of low/no diastatic activity
- Cold Smoking
 - Will need to dry the malt afterwards, want it 'bone dry'
- Storing the Smoked Malt
 - After drying the malt, is best to store it a month before use to let some nastier aromatics evaporate.
 - Lose ~20% of smoke flavor per year.
- Can smoke in a cold smoker set up (separate chambers for fire and malt) or...

Smoking Malt – Bullet Smoker Method

- Soak 1.75 lbs wood chips in 3 cups de-chlorinated water for at least a few hours, overnight if using wood chunks.
- Put a layer of 16-24# stainless or copper mesh on lower rack.
- Make a ‘bowl’ for 5 lbs of malt for upper rack, will be 3” deep in an 18” diameter smoker. Cover entire upper rack!
- Soak 5 lbs malt in 3 cups de-chlorinated water 15 minutes before smoking it. Shake to mix, add to mesh basket.
- Start electrical heating element and smoke ~ 2 hours, until all chips are gone. Do not open during this time.
- Dry malt in oven 200’F for a few hours until bone dry – don’t start a fire!
- Store malt a month before use to let volatiles evaporate.
- This will toast as well as smoke you malt.

Smoking Malt – Quick and Simple in the Weber

- Make 4 cups of ash covered charcoal briquette coals, bank to one side of grill.
- Briefly moisten 1 lb wood chips with 2 cups de-chlorinated water.
- Cover grill rack with 15-20 mesh copper or stainless mesh.
- Add 5 lbs malt to a large basket made of the same mesh, opposite the coals.
- Mist grain with water and mix well. Cover top of basket with mesh.
- Add chips onto coals and cover grill, both vents wide open.
- Smoke 10 minutes, stir the malt, smoke another 20 minutes.
- Dry the malt in oven 200°F for a few hours until bone dry, don't start a fire! This will also toast the malt.
- Store 1 month before use.

And Now Its... Your SOQ

(Enter Beer, Bring Beer)

Bring Your Smoked Beers!

- SOQ will be judged in September
- Winners will be announced in October
- Please bring some of your smoked beer and your recipe to the October meeting to share around!
We want to try!
- References:
- “Smoked Beers” by Ray Daniels and Geoff Larson - # 18 in the Classic Beer Styles series from Brewers Publications (Brewers Assoc.)