



Froth is the publication of the  
Brewers of Central Kentucky  
(B.O.C.K.): a non-profit  
organization dedicated to  
homebrewing.

**2003 B.O.C.K. Officers**

Primary Fermenter:

Bill Caldwell

Secondary Fermenter:

Bryan Richardson

Web Master:

Randy Alexander

Doug Blanton

Keeper of the Cash

Tony Aiken

Scribe;

Paul Moss

**How to Contact B.O.C.K.**

Brewers of Central Kentucky

2390 Sullivan Lane

Frankfort, KY 40601

Email [randya@qx.net](mailto:randya@qx.net)

Internet

<http://hbd.org/bock>

To submit something to Froth

call Paul @ 859 484 2349 or

email

[mosslanding@opexonline.com](mailto:mosslanding@opexonline.com)

Witbier:

Belgian White

*(stolen from article by [Martin Lodahl](#))*

Called biere blanche in French and Witbier (or simply Wit), in Flemish (pronounced somewhere between the English "wit" and "wet"), this type of wheat beer was once the dominant style in the area east of Brussels, from which the city of Louvain and the village of Hoegaarden shipped competing variants of the style to the rest of Europe. In the 18th and 19th centuries the advantage went to "biere blanche de Louvain," with more than 30,000 tonnes (approximately 6,400 bbl) shipped annually to Brussels, where for many years the beer was sold by the cask in an open-air market appropriately called La Place de Louvain. A Brussels city ordinance, dated "1 Floreal An VI" (20 April 1798) in the short-lived calendar of the French First Republic, banned the open-air trade in blanche de Louvain in any location adjoining a public street, ending the curious custom. The "blanche de Hougaerde" of the time was quite similar but never enjoyed the same popularity as its rival, presumably because of the larger town's greater resources for production and distribution.

**THE CHARACTER OF WIT**

So what is this style? First, it's a type of wheat beer. As with most wheat beers, the relatively high protein content leads to haze, giving the beer a light golden color and hence its name. Traditional recipes describe the grist as around 54% malted barley, 41% unmalted wheat, and 5% unmalted oats, though considerable variation was surely present. The malt was the extremely pale "wind malt," air-dried rather than kilned, and made from two-row barley. Modern formulations rarely use this malt because it is expensive and difficult to obtain. Original gravity is usually around 11-12 degrees P (1.044-1.048), and it is lightly hopped (<20 IBU) with low-alpha hops, generally Styrian Goldings, Saaz, or Kent Goldings.

**July Minutes**

Thanks to Tony Aiken for stepping in and leading our tasting of Pilsners. Next meeting at Sawyers on Aug 13th where we will be sampling Belgium Witbier. Don't forget The Mountain brewer open in Huntington WV this Saturday 9th Aug and Beer and Sweat at Florence KY on Saturday 23rd Aug

Hops are far from the only flavoring, though. In a practice harking back to before the days when beer was universally hopped, Witbier is spiced, usually with coriander and the peels of both sweet and bitter oranges and frequently with at least one more "secret spice" known only to the brewer and the brewer's herb merchant.

Historical evidence suggests that these beers were once intensely sour, and although modern examples tend to be dry, few

are more than lightly tart. The lightness of body from the wheat and a firm tartness from the hops, bitter orange, and yeast offset perfectly the smoothness of the oats and the sweetness of the sweet orange, making this among the most refreshing of beer styles.

#### MAKING A WIT

**Ingredients:** This is a style that can work well with customary brewing equipment and processes, though the materials require some special handling in many systems.

**Unmalted materials.** Naturally, the first consideration is the use of raw wheat, which is likely to prove troublesome in a British-style single-temperature infusion mash, with poor yield and an awkward (or simply stuck) sparge. Decoction mashing has proven to be a very successful way to approach this material, but it is labor-intensive and beyond the capability of many breweries. Some sort of temperature program is very desirable with raw wheat, so if your system isn't capable of it, flaked wheat may be a better choice.

Using wheat malt will produce a rather different effect and a beer that resembles the familiar American wheat more than a Witbier. I've read reports of attempts at the style using malted wheat, in which the product bore the clovelike phenolic notes of a Weizen. My own experience has been somewhat different, tending more toward a greater palate fullness than is desirable in a Wit, along with greater sweetness. The cloviness of a Weizen is a yeast effect.

Almost any variety of wheat seems to work reasonably well. White wheats and winter wheats generally provide the least protein. The raw wheat should be milled to about the same degree of crush that would be used for wheat malt. The kernels, however, are much harder, so you can expect it to be a significant strain on your mill. If your mash involves a protein rest, don't be terribly concerned about the amount of flour produced, unless your mash tun is susceptible to stuck mashes. In any case, it is best to go a little easy on the unmalted ingredients used and on the depth of the grain bed in the lauter tun until you know what your equipment can handle.

**Malts.** Traditionally, two-row pale malts have been the base malt in a Wit grist, but at least one commercial brewer today is using six-row as well, presumably for its additional diastatic power. The diastatic power of North American domestic two-row pale malt, however, is not that much less than that of its six-row counterpart, and it seems to work well in this role. A more authentic flavor can be gained by using the excellent Belgian Pils malt

now available, though at the expense of as much as 20 degrees Lintner of diastatic power. I do not recommend using pale ale malts; they are both too low in diastatic power and have too much caramel flavor for the style.

**Hops.** This is not a hoppy style, but it uses hops to dry the flavor by balancing malt sweetness. The principal addition, then, should be for bittering. If late hopping is done it should be with a hop that accents spicy notes, such as Saaz, rather than one emphasizing the floral, such as Cascade.

**Spices.** One of the most difficult things to do in the Wit style is to get the spicing right. A Wit with no spices is no Wit at all, but one in which the spices (especially sweet orange) are overdone tastes cloying and heavy, lacking the deft touch that's a primary characteristic of the style. Especially when brewing commercial-sized batches, it is a good idea to start with a smaller scale prototype batch, keeping in mind that spice scaling is decidedly nonlinear. In scaling up it would be wise to err on the side of caution and have a batch that's at least salable, if not as assertive as desired.

It is possible to do some postboil correction for wimpy spicing by soaking the material in an unflavored vodka to make what Randy Mosher refers to as "potions." In his outstanding new book, Mosher suggests using a liqueur to provide the citrus flavors, but my own experiments along those lines have been unrewarding, the liqueur providing too much residual sweetness without the firm bitterness of the dried peel. When adding the bitter orange in the kettle, however, the use of liqueurs would be an excellent way to add sweet orange flavor.

Two entirely different types of orange are used by the traditional producers of this style, one of which has been much harder to get than the other. The sweet orange, available as dried peelings, appears to be little, if any, different from the standard grocery store orange. The bitter, or Curacao orange, is grown in Spain, Italy, and North Africa, and although well known in Europe has been very difficult to find in North America. This situation has begun to change, however; some brewing suppliers now import it from Belgium. If you locate some of it, don't be put off by its appearance; it has a grayish, putty-like color, looking not at all like it came from an orange. Another promising possibility is a domestic bitter orange that a spice dealer mentioned to me. Apparently, it is primarily used for making marmalade, and I have yet to taste a batch of beer made with it. A good starting point for bitter orange is around 0.75 oz in a 5-gal batch (and no more than 4.5 oz/bbl in larger volumes), perhaps a little more for the sweet.

The other traditional spice is coriander, which should be ground freshly before use. A good starting point for this spice is also 0.75 oz in a 5-gal batch. You will develop your own “trademark” Wit flavor by balancing these three spices.

You may want to experiment with some other spices as well, preferably at levels so far in the background that the spice can't be individually identified. Good candidates include cumin, cardamom, anise, and black pepper. All spices should be added at the knockout of the boil or in the last 15 min before knockout to try to retain as many of the aromatics as possible.

Sour-flavor contributors. One other significant flavor should not be overlooked — tartness, or sourness. The fashion for very sour white beers has passed, and neither customers nor judges are likely to welcome its return, but a little sourness agreeably dries the flavor and seems to boost the contribution of the orange and the hops.

Traditionally, the sourness came from a Lactobacillus infection of some sort. At least one producer today inoculates the beer with a Lactobacillus culture after primary fermentation, then pasteurizes to arrest its action when the desired degree of sourness is reached. Without this pasteurization, it would continue to sour, with unpredictable results. Many commercial brewers are appalled by the idea of deliberately introducing a lactic culture into their brewing environment; such cultures have a way of being easier to introduce than to get rid of.

One technique that's been tried by amateur brewers is to sour the mash by adding some whole malt to it and allowing the microflora on the malt husks to multiply in the warm mash. Although I have heard of some successes, I have tasted more failures and suspect that you have as good a chance of being hit by lightning as of getting what you want from it.

At least some of the souring effect can be achieved through judicious additions of food-grade 88% lactic acid, though to my palate the result seems less pleasingly complex than the result of a good lactic infection. In a 5-gal pilot batch, 10 mL is a good starting point, adjusting to taste. By the time you

Beer Anagram  
 Boddingtons - The Cream of Manchester  
 Boddingtons stomach-ache fermenter

reach 25 mL, the beer will definitely be sour.

<p><b><u>August</u></b>          Beer Style(s):Witbier          Activities:Blues Brews &amp; BBQ Aug 2          Moutain Brewer Open Aug 9          Beer and Sweat Aug 22</p>
<p><b><u>September</u></b>          Beer Style(s):Oktoberfest          Activities:Ashville Beer Festival</p>
<p><b><u>October</u></b>          Beer Style(s):Irish Red Ale          Activities:</p>
<p><b><u>November</u></b>          Beer Style(s):Stout          Activities:Thanksgiving Potluck</p>
<p><b><u>December</u></b>          Beer Style(s):Old Ales, Barley wine          Activities:Christmas gift exchange</p>
<p><b><u>January</u></b>          Beer Style(s):Brown Ale          Activities:</p>
<p><b><u>February</u></b>          Beer Style(s):Bitter          Activities:</p>
<p><b><u>March</u></b>          Beer Style(s):Oatmeal Stout          Activities:Spring Brewoff</p>
<p><b><u>April</u></b>          Beer Style(s):Belgium Strong Ale          Activities:</p>
<p><b><u>May</u></b>          Beer Style(s):Maibock          Activities:</p>
<p><b><u>June</u></b>          Beer Style(s):Wheat beers          Activities:</p>
<p><b><u>July</u></b>          Beer Style(s):Pilsner          Activities:Nashville Beer Festival</p>

**Process:** I said before that when brewing in this style, using a temperature program has its advantages. Especially if using raw grains, more than enough protein will be present in the wort to create the desired haze, so a mash schedule that enhances the degradation of beta glucans can be used without making the finished wort too clear. I have had excellent results using the (decoction) mash schedule outlined by Eric Warner. Expect the sparge to be slow.

In recent years, a number of white beer yeasts have appeared on the market. Those that I have tried appear to be the yeast component of the pitching culture and have performed well in that role. Jackson describes the fermentation procedure at De Kluis as a week of primary fermentation at 18-24 degrees C (64-75 degrees F), followed by three to four weeks of warm conditioning at 12-15 degrees C (53-59 degrees F) (7). It is then dosed with glucose and a different yeast and left to condition for 10 days at 25 degrees C (77 degrees F). As with many Belgian styles, carbonation should be decidedly on the "spritzy" side.

#### ADVENTURE AWAITS

The Wit style is very brewable and very drinkable, especially in the hot season of the year. Though there are plenty of problems associated with brewing this style well, it can definitely be done by the brewer willing to explore a little.

Brewers of Central Kentucky  
P O Box 300  
Millersburg KY 40348