



The Herald Tribune



Volume # 26 Issue # 2

Newsletter of the Ann Arbor Brewers' Guild

February 2012

February Meeting

This month's meeting of the AABG is Friday February 10th. It will be hosted by **Adventures in Homebrewing**. See the map and directions on the next page. The featured style is **Dark Lagers**.

Munich Dunkel

Dunkels were the original style of the Bavarian villages and countryside. Lighter-coloured lagers were not common until the later part of the 19th century when technological advances made them easier to produce.

Dunkels have a distinctive malty flavour that comes from a special brewing technique called decoction mashing.

AABG 2012

January	Adventures in Homebrewing	Dark Lagers*
February	Adventures in Homebrewing	Dark Lagers*
March	Adventures in Homebrewing	Stout*
April		Stout*
May	Stephen Krebs	Scottish/Irish*
June	Mark Zadvinski	Wheat Beers
July	BeerBQ	Mead
August		Porter*
September		Light Hybrid*
October		Light Hybrid*
November	Chris Frey	Old Ale*
December	Rolf Wucherer	Old Ale*

* Denotes AHA Club Only Competition Style

All meetings are the second Friday of each month beginning at 7:30 p.m., except for the July meeting (BeerBQ) which is the second Saturday.

AABG Pico System

The club's pico system is available to members for brewing. If you wish to borrow it contact Mike O'Brien at:

734.637.2532

picobrew@comcast.net

Access the AABG Club System forum at:

<http://tinyurl.com/29h7yxc>

4. Dark Lager

4A. Dark American Lager

4B. Munich Dunkel

4C. Schwarzbier (Black Beer)

4B. Munich Dunkel

Aroma: Rich, Munich malt sweetness, like bread crusts (and sometimes toast.) Hints of chocolate, nuts, caramel, and/or toffee are also acceptable. No fruity esters or diacetyl should be detected, but a slight noble hop aroma is acceptable.

Appearance: Deep copper to dark brown, often with a red or garnet tint. Creamy, light to medium tan head. Usually clear, although murky unfiltered versions exist.

Flavor: Dominated by the rich and complex flavor of Munich malt, usually with



melanoidins reminiscent of bread crusts. The taste can be moderately sweet, although it should not be overwhelming or cloying. Mild caramel, chocolate, toast or nuttiness may be present. Burnt or bitter flavors from roasted malts are inappropriate, as are pronounced caramel flavors from crystal malt. Hop bitterness is moderately low but perceptible, with the balance tipped firmly towards maltiness. Noble hop flavor is low to none. Aftertaste remains malty, although the hop bitterness may become more apparent in the medium-dry finish. Clean lager character with no fruity esters or diacetyl.

Mouthfeel: Medium to medium-full body, providing a firm and dextrinous mouthfeel without being heavy or cloying. Moderate carbonation. May have a light astringency

and a slight alcohol warming.

Overall Impression: Characterized by depth and complexity of Munich malt and the accompanying melanoidins. Rich Munich flavors, but not as intense as a bock or as roasted as a schwarzbier.

History: The classic brown lager style of Munich which developed as a darker, malt-accented beer in part because of the moderately carbonate water. While originating in Munich, the style has become very popular throughout Bavaria (especially Franconia).

Comments: Unfiltered versions from Germany can taste like liquid bread, with a yeasty, earthy richness not found in exported filtered dunkels.

Ingredients: Grist is traditionally made up of German Munich malt (up to 100% in some cases) with the remainder German Pilsner malt. Small amounts of crystal malt can add dextrins and color but should not introduce excessive residual sweetness. Slight additions of roasted malts (such as Carafo or chocolate) may be used to improve color but should not add strong flavors. Noble German hop varieties and German lager yeast strains should be used. Moderately carbonate water. Often decoction mashed (up to a triple decoction) to enhance the malt flavors and create the depth of color.

Vital Statistics:

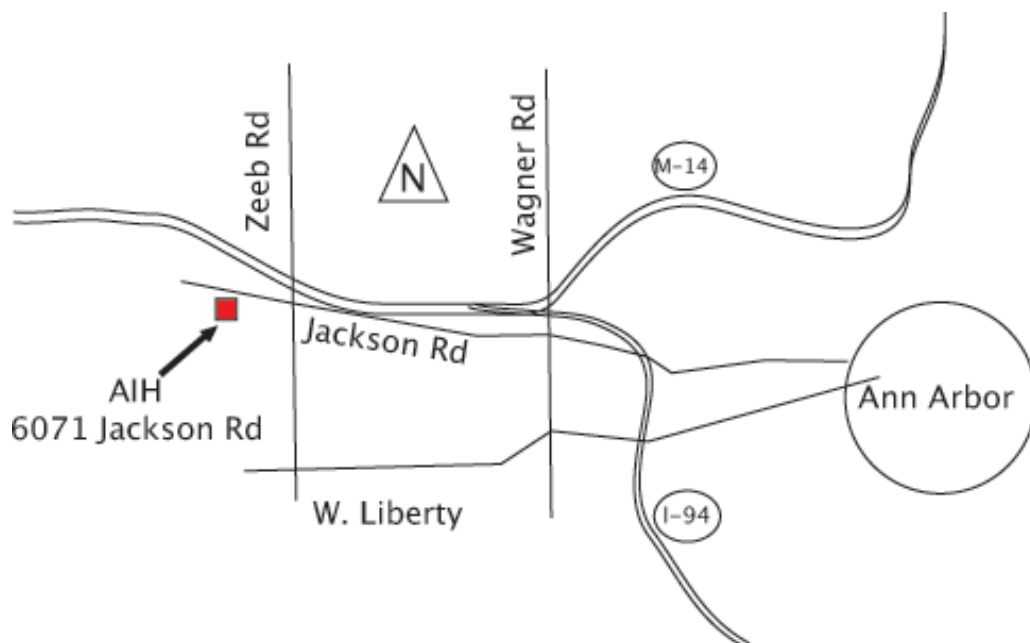
OG: ... 1.048-1.056
FG: ... 1.010-1.016
IBUs: ... 18-28
ABV: ... 4.5-5.6%
SRM: ... 14-28

Commercial Examples: Ayinger Altbairisch Dunkel, Hacker-Pschorr Alt Munich Dark, Paulaner Alt Münchner Dunkel, Weltenburger Kloster Barock-Dunkel, Ettaler Kloster Dunkel, Hofbräu Dunkel, Penn Dark Lager, König Ludwig Dunkel, Capital Munich Dark, Harpoon Munich-type Dark Beer, Gordon Biersch Dunkels, Dinkel Acker Dark. In Bavaria, Ettaler Dunkel, Löwenbräu Dunkel, Hartmann Dunkel, Kneitinger Dunkel, Augustiner Dunkel.

When and Where
Friday, Feb. 10, 7:30 pm
Adventures in Homebrewing
6071 Jackson Road
Ann Arbor MI
313 277 2739

Extra Info About AIH

There are no chairs, if you want to sit down, bring a chair. Homebrew supplies can be bought from AIH, but you must make your purchase before 7:00 p.m.



AABG Policy

AABG encourages responsible, legal consumption of homebrewed and craft beverages.

You must be at least 21 years old to attend AABG meetings.

Guide for New Members

Bring a tasting glass and 1–2 bottles per batch of your beer that you'd like to share, or an interesting commercial beer. Bring tasty munchies to cleanse the palate and sop up the alcohol. Feel free to share and sample with other members and make and accept constructive comments. Please use good judgment while imbibing and don't drive while intoxicated.

Munich Dunkel

Munich Dunkel is an old style of beer made famous in Bavaria, and especially in Munich. When advancements in malting came along maltsters were able to use the new controlled malting techniques to make a pale malt which soon became famous as the pilsner malt. The water in Bavaria, and especially in Munich was high in carbonates which just wouldn't produce acceptable pilsners. They could, however, make wonderful dark beers with the darker malts.

Maltsters found that with the new malting techniques they could go further with the kilning process to produce a darker malt that was extremely complex in its character yet still retained most of its fermentability. This is the malt we now know as Munich malt and is the primary malt used to brew Munich Dunkels. The malt is less fermentable than the pale malts and tends to produce a full-bodied dextrinous beer.

Dunkel means "dark" in German. This style encompasses beers rich in complex malty sweetness with enough noble hop bitterness to keep the beers from being cloyingly sweet.



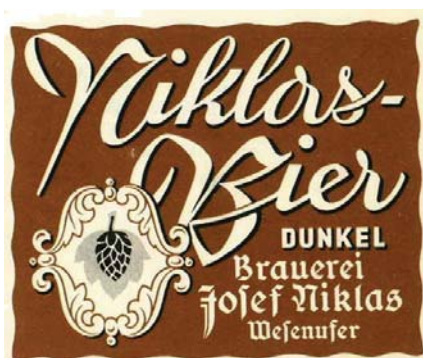
Some of the malt complexity comes from the chemical reactions occurring during the kilning of Munich malt. Some of the malt complexity comes from the mashing process known as decoction mashing. Instead of adding hot water to the mash to increase the

temperature, decoction mashing involves pulling a portion of the mash to boiling, then returning it back to the main mash to bring the temperature up to various saccharification rests so the enzymes can convert the starches into fermentable sugars and the typical body-building dextrins in Munich Dunkels. When the mash is heated to boiling, Malliard reactions occur which intensify the malty character.

There are many great commercial examples of the Munich Dunkel style from all over the world. Those in northern parts of Bavaria tend to be somewhat darker and may have a nice roasty character to them although this is not considered part of the style. Many of these beers are made entirely from Munich malt or with just a touch of the darker Carafo malts which add coloring without adding any roasty notes. You can use a mixture of Munich malts with varying degrees of Lovibond for complexity, but don't try to make this beer with a lot of pale malt such as pilsner. You lose the toasty-bready malt character which the Munich Dunkel is famous for.

The Gem of Bavaria

A revered institution is one that endures via love of tradition, one that needs little refinement, let alone overhaul or modernization. In the world of beer, that is, without debate, true about Munich dunkel. Sometimes referred to simply as dunkel ("dark"), it is the everyday, luxuriant brunette brew of Bavaria and Franconia, and the beer that brought renown to Munich as a brewing center. True to the roots of Bavarian brewing history as both a dark beer and lager, dunkel is one of those rare gems that combines depth and simplicity packaged in proletarian delight, marrying the rich footprint of dark malts with the smoothness of a lager. Munich dunkel has a biphasic history, with evolution mirroring character. From the centuries-old drink of the commoner, through the relatively recent age of refinement, dunkel tenaciously held its origins while moving seamlessly into modern brewing. It employs enthusiastically the malt that bears the name, Munich, of the city that made the beer famous. To examine the saga of dunkel is to delve into the transformation of German brewing on the



whole. Loath to change, and with centuries of brewing as a testament, dunkel is a symbol of Southern Germany.

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Dark Horizons

Evidence of brewing in German goes back about 2,800 years, coincidentally to the area known as Franconia, in the north of Bavaria. Kulmbach, Franconia has the most traceable history, and the most traditional dark lagers, with documentation of monastic brewing there since 1349. This is not to say that the rest of

Germany was a contemporary brewing wasteland: rather that the beers of Kulmbach were simply better and more well-known. Other regions of Bavaria were prodigious in their own right, with mention of lagerbier in Munich brewing documents from the 1400s.



But dunkel, as a distinct beer style, can be tracked to the 16th century, and is directly tied to the legendary Reinheitsgebot, the Bavarian Beer Purity Law of 1516.

The law was decreed by the Wittelsbachs, who ruled Bavaria from 1180 to 1918, and besides being royalty, were also brewers and held an omnipotent hand in much of the commercial decisions in the region during their lengthy reign. As much as the validity of the Reinheitsgebot may be debated today, it was at the time an important protective verdict that ensured the purity and safety of not only the product, but also protected the livelihood of the farmers and brewers in Bavaria at the time. In essence, it inadvertently mandated the refinement of the local product by stating that beer could be made only with barley, hops and water (and later yeast, which was thought to be the wand of Providence).

As the local beer was dark, and lagering practices were already in place in chilly grottos of the hillsides, dunkel brewing flourished and improved. Add to this the notion of terroir as it related to hops and barley, a landlocked and somewhat isolated location relative to great exporters like the British, and local malting techniques, and one can see how a style took its intuitive identity. Germany was well ahead of the proverbial curve as far as hop cultivation and utilization was concerned, further adding to the distillation of design.

Dark Circles

Dunkel would not move towards its present form until three centuries post-Reinheitsgebot, when several innovations and one peripatetic visionary, Gabriel Sedlmayr II, brought the style into the modern world.

An indirect-heat malt kiln, similar to a coffee roaster, was invented that early in the 19th century. It afforded entire control over the color and properties of the primary brewing component, malt. Having traveled to Britain and seeing the possibilities of this contraption and its ability to create pale, uniform malt, Sedlmayr extrapolated that he could still produce his dark, base malt but with even greater precision. That malt today is known as Munich malt and that which gives dunkel its profile; all of the color and character without the spurious smoky flavors of yore.

Sedlmayr, a member of the venerable brewing family that had recently taken over operations at Spaten, was a student of all things beer. He took a particular interest in the emerging science of yeast microbiology and cultivation, yet another arrow in his legendary quiver that helped delineate his brews even more. This technological convergence culminated with the invention of refrigeration, making lagerbier brewing a year-round, entirely controllable endeavor.

Munich dunkel enjoyed great popularity until the end of the 19th century, when some of the market gave way to paler beers. Many of these pale beers, specifically Munich helles, were brewed alongside the ever-popular dunkel, and as a result, may have ushered in, or at least popularized, the notion of multi-style brewing at a given brewery. Festbiers, pilsner and bock followed at many of them.



Even in light of the movement towards pale beers over a hundred years ago, dunkel was unassuming and appealing enough to keep the interest of beer drinkers. That alone should be proof enough of its charm.

Dark Art

The soul of a dunkel, maybe more than any other beer, comes from its heavy reliance on a single malt. As stated earlier, it is a product

Dunkel continued on next page...

... *Dunkel* continued

of precise kilning, and one that was used in Munich to preserve the anachronistic quality of the brew. Even before the drum kiln was invented, beers were often made from a single batch of malt (directly heated, with wood or coal as the fuel). While this is not uncommon today, the difference lies in the control, and desired consistency and subtleties imparted therein. An ancient batch of malt would be smoky, probably harsh and a bit inconsistent. The modern kiln allowed degrees of malt to be made that would produce distinct beers that bear the name of the malt itself (pilsner, Vienna, pale ale and of course, Munich), but each successive dark malt would be much different than the other and could be used alone to produce each beer. The length and intensity of the kilning determines the final color, but also introduces a continuum of reactions that further resolves the unique profile.

As Munich is the darkest of the lot, it would differ the most from the original pale malt. This is especially true because of reactions that form melanoidins, a combination of protein and carbohydrate, and is responsible for the intense malty flavors and aromas. The result is a base grain that is less fermentable and therefore more full-bodied or dextrinous, but also an opulent one, full of malty, toffeeish,



breadly and caramelized notes in both the palate and nose, a deep brown color tinted with garnet and ruby and soft, supple contours.

A dunkel could be made exclusively of a dark version of Munich malt, as the beers of Sedlmayr were, to showcase the vast complexity that a single component can lend to a brew. Many are augmented with some caramel malt, or softened with Pilsner malt, but nonetheless a great dunkel gets by primarily with its bill of Munich malt. Such is the art of producing a beer and, in this case, creating a single descriptive, formulative entity

as a means to the end. Brilliance in simplicity. All of these traits may be even more accentuated if the brewer employs decoction mashing.



Dunkels are hopped with reserve, though a hint of noble German hops should be evident, to display the malty platform on which this brew performs. Dunkels are rounded out with a cool fermentation and long cold-conditioning period typical of all lagers, lending a smooth, soft character without the brusque edge typical of many dark beers. Modest in strength, at around 5 percent ABV, dunkels can be considered a session beer and one that offers more than many others.

For a dark brew, Munich dunkel is satisfying across a broad spectrum of whims. Expectedly, they are rich, yet not heavy. Surprisingly, they finish with a quenching crispness. Moreover, the paradox of complexity from simplicity is apparent from aroma to finish, a manifestation of malting artistry and understated panache. It is a beer appropriate enough for the languid days of summer or the cuddle of winter.