



Style of the Quarter Altbier



Club judging will be held at the October meeting, NCHF keg judging will be held in September



- » Alt is an ale and fermented as such, but it can be lagered up to 8–10 weeks.
- » Up to the 1950s, Alt was also called Düssel (from Düsseldorf), but since the term is not a Protected Designation of Origin, Altbier may also be produced outside of the Düsseldorf region (unlike kölsch).
- » Düsseldorf and Cologne are long-time rivals, though today it mostly comes down to whose beer is better, Düsseldorf's Altbier or Cologne's Kölsch
- » Some alt breweries have a tradition of producing a strong ale known as Sticke Alt, (a local dialect word meaning "secret"). It is generally a seasonal or special occasion brew, and is stronger than the brewery's standard alt.

History

The name Altbier, which literally means old [style] beer, refers to the pre-lager brewing method of using a warm top-fermenting yeast like British pale ales. Over time the Alt yeast adjusted to lower temperatures, and the Alt brewers would store or lager the beer after fermentation, leading to a cleaner, crisper beer than is the norm for an ale.

The Bavarian Reinheitsgebot (beer purity law; literally "purity order") of 1516 was drawn up to ensure the production of decent-quality beer; however, this decree did not affect brewers of the Rhineland. As such, the brewing traditions in this region developed slightly differently. For example, brewing during the summer was illegal in Bavaria, but the cooler climate of the Rhineland allowed Alt brewers to brew all year long and to experiment with storing fermented beer in cool caves and cellars.

The name "altbier" first appeared in the 1800s to differentiate the beers of Düsseldorf from the new pale lager that was gaining a hold on Germany. Brewers in Düsseldorf used the pale malts that were used for the modern pale lagers, but retained the old ("alt") method of using warm fermenting yeasts.

The first brewery to use the name Alt was Schumacher which opened in 1838. The founder, Mathias Schumacher, allowed the pale ale to mature in cool conditions in wooden casks for longer than normal, and laid the foundation for the modern alt beer - an amber coloured, lagered ale. The result is a pale ale that has some of the lean, dryness of a lager, with the fruity notes of an ale.

An Incomplete Timeline of Brewing in Germany

(from Daniels)

1295 ----- Beer brewed in Pilsen (Wheat and barley ales)
1200 ----- Brewing a major activity in Cologne. (Brewers guild in 1396)
1325 ----- Einbeck beer exported to Hamburg and Bremen (top fermented?)
1400 ----- Hops in use in Germany
1400's ----- Lager beer made in Bavaria
1400's ----- Einbeck beer was best, Munich so-so.
15th C (1400's) lager made with bottom yeast and cold temps
1500 ----- Movement to improve Munich beer. Reinheitsgebot in 1553.
1618-1648 ---- 30 years war ended brewing in Einbeck
1630 & 1638--- mandate in Cologne: must use hops and top yeast.
1698 ----- Koln oath: "prepare your beer as of old"
1750 ----- Cologne still trying to eliminate Lager brewing
1840 ----- Bohemians still brewing ale
1841 ----- Lager brewing introduced to Vienna
19th C (1800's) Vienna lager, including Marzen
end of 1800's-- refrigeration commonplace
1883's ----- Munster Altbier acidic/lactic, (like Berliner weise)
1898-1900 ---- New Barley Ales of Germany appeared, with a revival of top fermented beers
1842 ----- first keg of Pilsner Uguell.
20th C ----- pale Kolsch

History

Old German Beers (BP—before pilsners)

Pilsner:

First Pilsner (Urguell) tapped November 11, 1842
Light malt was only 90% dry, so had to be used fresh.
Before coal/coke, malt kilned over wood.

Ales: Alt (formulated since 1900)
Kolsch (formulated even later than Alts)

Lagers

Munich Helles, Munich Dunkel, Bock, Merzen/Oktobertfest

Lagers:

Bottom fermenting yeast, cool fermentation, cold lagering.
Made from the 15th century.
Einbeck beer was sold by 1325.
As recently as 1840, Bavarians still brewing ale
Lager beer was brewed in Bavaria from the 1400's.
Prior to 1500's Munich beer has been mediocre. Thus the beer purity laws of 1553.
Second law, brew only from October to May. So last beer was Marzen.
In the 1600's Munich tried to be as good as Einbeck.
Einbeck destroyed by the 30 years war.

Ale Revival

In 1900 there was a revival of top fermented beers. Styled to appeal to lager drinkers.
Cologne and Dusseldorf kept ale brewing alive.
New German ales, "old" ("alt") formulated in last 100 years (since 1900).
Fermented with top fermenting (ale) yeast, and cold aged (lagered)
Refrigeration was commonplace in breweries by the end of the 1800's.

BBJP Guidelines

7C. Düsseldorf Altbier

Aroma: Clean yet robust and complex aroma of rich malt, noble hops and restrained fruity esters. The malt character reflects German base malt varieties. The hop aroma may vary from moderate to very low, and can have a peppery, floral or perfumy character associated with noble hops. No diacetyl.

Appearance: Light amber to orange-bronze to deep copper color, yet stopping short of brown. Brilliant clarity (may be filtered). Thick, creamy, long-lasting off-white head.

Flavor: Assertive hop bitterness well balanced by a sturdy yet clean and crisp malt character. The malt presence is moderated by moderately-high to high attenuation, but considerable rich and complex malt flavors remain. Some fruity esters may survive the lagering period. A long-lasting, medium-dry to dry, bittersweet or nutty finish reflects both the hop bitterness and malt complexity. Noble hop flavor can be moderate to low. No roasted malt flavors or harshness. No diacetyl. Some yeast strains may impart a slight sulfury character. A light mineral character is also sometimes present in the finish, but is not required. The apparent bitterness level is sometimes masked by the high malt character; the bitterness can seem as low as moderate if the finish is not very dry.

Mouthfeel: Medium-bodied. Smooth. Medium to medium-high carbonation. Astringency low to none. Despite being very full of flavor, is light bodied enough to be consumed as a session beer in its home brewpubs in Düsseldorf.

Overall Impression: A well balanced, bitter yet malty, clean, smooth, well-attenuated amber-colored German ale.

History: The traditional style of beer from Düsseldorf. "Alt" refers to the "old" style of brewing (i.e., making top-fermented ales) that was common before lager brewing became popular. Predates the isolation of bottom-fermenting yeast strains, though it approximates many characteristics of lager beers. The best examples can be found in brewpubs in the Altstadt ("old town") section of Düsseldorf.

Comments: A bitter beer balanced by a pronounced malt richness. Fermented at cool ale temperature (60-65°F), and lagered at cold temperatures to produce a cleaner, smoother palate than is typical for most ales. Common variants include Sticke ("secret") alt, which is slightly stronger, darker, richer and more complex than typical alts. Bitterness rises up to 60 IBUs and is usually dry hopped and lagered for a longer time. Münster alt is typically lower in gravity and alcohol, sour, lighter in color (golden), and can contain a significant portion of wheat. Both Sticke alt and Münster alt should be entered in the specialty category.

Ingredients: Grists vary, but usually consist of German base malts (usually Pils, sometimes Munich) with small amounts of crystal, chocolate, and/or black malts used to adjust color. Occasionally will include some wheat. Spalt hops are traditional, but other noble hops can also be used. Moderately carbonate water. Clean, highly attenuative ale yeast. A step mash or decoction mash program is traditional.

Vital Statistics:

OG: 1.046 – 1.054

IBUs: 35 – 50

FG: 1.010 – 1.015

SRM: 11 – 17

ABV: 4.5 – 5.2%

Commercial Examples: Altstadt brewpubs: Zum Uerige, Im Fückschen, Schumacher, Zum Schlüssel; other examples: Diebels Alt, Schlösser Alt, Frankenheim Alt

BZCP Guidelines

7A. Northern German Altbier

Aroma: Subtle malty, sometimes grainy aroma. Low to no noble hop aroma. Clean, lager character with very restrained ester profile. No diacetyl.

Appearance: Light copper to light brown color; very clear from extended cold conditioning. Low to moderate off-white to white head with good retention.

Flavor: Fairly bitter yet balanced by a smooth and sometimes sweet malt character that may have a rich, biscuity and/or lightly caramelly flavor. Dry finish often with lingering bitterness. Clean, lager character sometimes with slight sulfury notes and very low to no esters. Very low to medium noble hop flavor. No diacetyl.

Mouthfeel: Medium-light to medium body. Moderate to moderately high carbonation. Smooth mouthfeel.

Overall Impression: A very clean and relatively bitter beer, balanced by some malt character. Generally darker, sometimes more caramelly, and usually sweeter and less bitter than Düsseldorf Altbier.

Comments: Most Altbiers produced outside of Düsseldorf are of the Northern German style. Most are simply moderately bitter brown lagers. Ironically "alt" refers to the old style of brewing (i.e., making ales), which makes the term "Altbier" somewhat inaccurate and inappropriate. Those that are made as ales are fermented at cool ale temperatures and lagered at cold temperatures (as with Düsseldorf Alt).

Ingredients: Typically made with a Pils base and colored with roasted malt or dark crystal. May include small amounts of Munich or Vienna malt. Noble hops. Usually made with an attenuative lager yeast.

Vital Statistics:

OG: 1.046 – 1.054

IBUs: 25 – 40

FG: 1.010 – 1.015

SRM: 13 – 19

ABV: 4.5 – 5.2%

Commercial Examples: DAB Traditional, Hannen Alt, Schwelmer Alt, Grolsch Amber, Alaskan Amber, Long Trail Ale, Otter Creek Copper Ale, Schmaltz' Alt

Technique

Grist:

Mostly German Pils, Munich and Vienna malts, domestic versions of the malts may be used, but not British malts. Avoid high Lovibond crystals and roasted malts. Typically Pils will make up the base

Hops:

German noble hops are almost exclusively used.

Common varieties used are; Spalt, Hallertuaer & Perle. Spalt is the 'classic' hop used in Düsseldorf altbier.

Other hops used are Northern Brewer, Mt. Hood and American Hallertauer.

Hop additions are typically bittering and at 30-20 minutes. Aroma hopping is typically not done. Should be malt-forward with an assertive bitterness.

Yeast:

It is important to use the correct yeast for this style. WLP036 (seasonal strain) or Wyeast 1007 are highly recommended, Both are the Zum Uerige strain. Safale also makes a dry alt yeast (K-97) that is also the Zum Uerige strain, but it will give you a higher attenuation. WLP320 (American Wheat) will also make a good alt, as it comes from Widmer via Zum Uerige. Widmer chose it for their wheat due to its low flocculation. It has changed somewhat in the time it's lived with Widmer, but it still makes a darn good alt.

Using filtered tap water is fine, but alts are typically brewed with medium hard water.

Mash:

pH of 5-5.8

- Higher pH can impact fermentation by-products, such as increased diacetyl and higher fusels alcohols

Early versions were single infusion

- Mash low at 144° - 148° F for a higher degree of fermentability and greater attenuation if doing a single-infusion mash.

- A single or double decoction or a step-mash is traditional for an alt. With these processes a 150-170 min mash for an alt is typical. Personally I use about 8 ounces of melanoidin malt (per 6 gallons), which will give some of the character of a decoction due to the melanoidin content.

Boil:

90-120 min boil to develop kettle caramelization. A vigorous boil will help to precipitate proteins and tannins, as well as minimize development of DMS.

Fermentation:

Temperature is typically on the cool side, ~60° F.

- Recommended not to pitch yeast lower than 59° F
- Ferment at temps between 55° - 63° F. Fermentation temperatures should **not** exceed 63° F
- Finings can be used to help clarify (alt yeast has very low flocculation)
- Filtering can be done, and is recommended if you have a filter setup to help clarify.
- Can also be clarified with cold conditioning.

After fermentation is complete, the beer can be lagered for 2 weeks or up to 10 weeks to clarify and cold-condition.

Carbonation:

Bottled alt typically has a higher level of carbonation than draft versions. Carbonation levels: on the low end 2.1-2.2 volumes are typical (usually draft versions), with 2.6-2.7 volumes at the higher end (usually bottled versions).

Technique

From 'Designing Great Beers'

Brewing Altbier (Alt)

Alt and Kölsch are the German Ales. Ales were the first type of beer before lagers became dominant in Germany. Renewed interest in German ales around 1900. To promote them these beers called "Alt" because they were the old style, i.e., ale. However, since people were used to Pilsners by that time, Alts were cool fermented and lagered, to make them more appealing. The Alt style came from Dusseldorf and later the Kölsch came from Cologne.

The difference between Kölsch (pale) and Alt (amber) is in the grain bill. Both want OG of 1.045 to 1.050, high attenuation, low ester/fruity character, little or no hop flavor, no aroma. Kölsch uses base of Pilsner malt with some wheat malt. Alt uses base Pilsner malt with 15-30% Munich malt, and up to 1% black malt for color. Crystal not traditionally used, wheat occasionally. Alt has higher bitterness.

BJCP	Kolsh			North German Alt			Dusseldorf Alt		
OG	1.044	-	1.050	1.046	-	1.054	1.046	-	1.054
FG	1.007	-	1.011	1.01	-	1.015	1.010	-	1.015
IBU	20	-	30	25	-	40	35	-	50
SRM	3.5	-	5	13	-	19	11	-	17
ABV	4.4	-	5.2	4.5	-	5.2	4.5	-	5.2

Alt Recipe

(NHC winners advancing to second round)

80% Pilsner malt

15-30% Munich malt

0-1% black malt

*note- I have seen (and tasted) good recipes using closer to 40% Munich malt, up to about 50%. db

German style hops, such as Spalt, Hallertau, Mt Hood

No late hop additions.

Mash 145-149 ° F.

OG = 1.045-1.050

IBU = 30-50

BU/GU = 0.7

Ferment at 60 ° F.

Condition 50 ° F for 2 weeks.