

# **BJCP Style Flashcards**

**c. 2011**

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This study aid covers all the beer styles which might be on the BJCP exam. It presents the BJCP guidelines in a tabular form, with each sensory descriptor in its own column, with one beer substyle per page. Information from the guidelines has been lightly edited to make it fit. *Information in italics, other than headers, is my own and has been added only where there are serious gaps or errors in the guidelines.* Styles marked with an asterisk (\*) are those which might appear as all-grain recipes on question T14.

## 1A. Lite American Lager

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	None-Low	None-Low	None-Low		Pale Straw-Pale Yellow	V. Clear		White	Seldom persists			
<b>Character:</b>	Grainy, Sweet or Corn-like	Light, spicy or floral					Frothy					
<b>Optional:</b>			Green apple ( <i>acetylaldehyde</i> ), DMS, Fruitiness ( <i>Esters</i> )									
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low	Low	None-Low	None-Low	Balanced			V. Light	Very High			
<b>Character:</b>					Slightly malty-Slightly bitter		Crisp, dry		Slight carbonic bite			
<b>Optional:</b>	Grainy or Corn-like sweetness					Slight acidity or dry “sting” from high carbonation		Watery				
<b>Unacceptable:</b>				Diacetyl, Fruitiness			Strong flavors					
	<b>OG:</b> 1.028 - 1.040		<b>FG:</b> 0.998 - 1.008		<b>ABV:</b> 2.8 - 4.2%		<b>IBU:</b> 8 - 12		<b>SRM:</b> 2 - 3			

**Overall Impression:** Very refreshing and thirst quenching.

**Comments:** A lower gravity and lower calorie beer than standard international lagers. Designed to appeal to the broadest range of the general public as possible. *Examples using rice rather than corn are generally considered to be superior (more neutral-flavored) products. Despite the designation “Lite American Lager,” imported examples are generally better tasting examples of the style. International versions are sometimes sold under the name “Diet Pils.”*

**Ingredients:** Two- or six-row barley with high percentage (up to 40%) of rice or corn (*whole, flaked/torrefied or syrup*) as adjuncts. *Imported and “premium” brands generally use more barley malt and rice than cheaper, domestically-produced versions. American or German lager yeast, sometimes artificially precipitated or filtered before it has quite had a chance to metabolize secondary fermentation products (acetylaldehyde). For reasons of economy, commercial lite lagers are bittered using miniscule amounts of extremely high alpha-acid bittering hops. “German noble hops (e.g., Hallertaer) or American or German varieties descended from noble hops are used for flavor and aroma. Some commercial varieties use chemically-extracted hop resins and oils, allowing them to closely control the flavor and aroma of their products, and to ship them in green or clear bottles without the risk of becoming light-struck.*

**Technique:** *Cereal mash is common, although some commercial breweries use syrups or torrefied/flaked adjuncts. Starch conversion rest is generally at lower temperatures to produce thinner, more fermentable wort. High gravity brewing is commonly used to increase production volume. Commercial versions are highly filtered and force carbonated to help attain thin body, brilliant clarity and high carbonation. Some also have artificial heading agents to help increase head. Commercial examples also once used amylase enzymes to reduce body and increase ABV, although this is no longer the case. Primary fermentation is 1-2 weeks at 32-34° F, followed by 3-6 weeks of lagering at the same temperature. Commercial breweries use various methods of speeding up fermentation and conditioning time.*

**History:** *Invented in 1967 by Dr. Joseph Owades, who used amylase enzymes to create a reduced-calorie, thinner-bodied version of Standard American Lager. Originally marketed to women, by the Rheingold Brewery, as Gablinger’s Diet Beer, the style was initially a commercial failure. The style became popular starting in 1973, when Miller Brewing Company began to aggressively market their product, Miller Lite., to health-conscious male sports fans. By 1992, Lite American Lager was the best-selling style of beer in America, largely due to the success of Miller Lite and its competitors. To compete, international breweries and many U.S. regional and craft breweries have their own brands.*

**Commercial Examples:** Bitburger Light, Sam Adams Light, Heineken Premium Light, Miller Lite, Bud Light, Coors Light, Baltika #1 Light, Old Milwaukee Light, Amstel Light.

## 1B. Standard American Lager

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	None-Low	None-Low	None-Low		V. Pale Straw-Med. Yellow	V. Clear		White	Seldom persists			
<b>Character:</b>		Light, spicy or floral					Frothy					
<b>Optional:</b>	Grainy, Sweet or Corn-like		Green apple ( <i>acetylaldehyde</i> ), DMS, Fruitiness ( <i>Esters</i> )									
<b>Unacceptable:</b>			Diacetyl									
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low	Low-Medium Low	None-Low	None-Low	Balanced			Very Light	Very High			
<b>Character:</b>	Grainy or Corn-like sweetness				Slightly malty-Slightly bitter		Crisp, dry		Slight carbonic bite			
<b>Optional:</b>						Slight acidity or dry “sting” from high carbonation						
<b>Unacceptable:</b>				Diacetyl, Fruitiness			Strong flavors					
	<b>OG:</b> 1.040 - 1.050		<b>FG:</b> 1.004 - 1.010		<b>ABV:</b> 4.2 - 5.3%		<b>IBU:</b> 8 - 15		<b>SRM:</b> 2 - 4			

**Overall Impression:** Very refreshing and thirst quenching.

**Comments:** An international style including the standard mass-market lager from most countries, *although derived from American brands. International versions generally use more barley and substitute sugar syrups or rice for corn, giving them a more neutral flavor. For this reason, they are generally considered to be superior, and are often imported as prestige products.*

**Ingredients:** As for Lite American Lager, except that amylase enzymes have never been used to thin the body.

**Technique:** As for Lite American Lager.

**History:** A post-Prohibition style, derived from Pre-Prohibition Classic American Pilsners and Premium American Lagers, but made with an even lighter body, cheaper ingredients and to lower alcoholic strength to appeal to Depression-era customers who had little money to spend and who were no longer familiar with maltier, stronger Pre-Prohibition styles of beer. It was one of the first styles of beer to be pasteurized and canned, which aided product consistency and stability, thus allowing regional and national breweries to further dominate the U.S. beer market, already reeling from the combination of Prohibition and the Great Depression. The style's success was reinforced during World War II; domestically, its light flavor and body appealed to women working outside the home, while canned light lager was the only type of beer that many U.S. servicemen could get overseas. Its refreshing, easy-drinking qualities, modern image and inoffensive character, combined with relentless advertising, made it the dominant beer style in the U.S. from the 1930s until 1992, when it was superseded by Lite American Lager. After WWII, partially due to U.S. cultural influence, and partially due to the style's tremendous mass appeal, breweries outside the U.S. began to produce their own versions of the style. The success of light lagers in Europe and Australia has badly damaged the market for more traditional styles of beer.

**Commercial Examples:** Pabst Blue Ribbon, Miller High Life, Budweiser, Baltika #3 Classic, Kirin Lager, Grain Belt Premium Lager, Molson Golden, Labatt Blue, Coors Original, Foster's Lager.

## 1C. Premium American Lager

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - medium-low	Very low-moderately-low	None-Low		Pale straw - gold	Very clear		White				
<b>Character:</b>		Light, spicy or floral					Frothy					
<b>Optional:</b>	Grainy, Sweet or Corn-like		Green apple (acetylaldehyde), DMS, Fruitiness (Esters)									
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low	Low-Medium	None-Low	None-Low	Balanced			Moderately-light	Very High			
<b>Character:</b>	Grainy or malty sweetness				Slightly malty-Slightly bitter		Crisp, dry		Slight carbonic bite			
<b>Optional:</b>						Slight acidity or dry “sting” from high carbonation						
<b>Unacceptable:</b>				Diacetyl, Fruitiness			Strong flavors					
	<b>OG:</b> 1.046 - 1.056		<b>FG:</b> 1.008 - 1.012		<b>ABV:</b> 4.6 - 6%		<b>IBU:</b> 15 - 25			<b>SRM:</b> 2 - 6		

**Overall Impression:** Refreshing and thirst quenching, although generally more filling than standard/lite versions.

**Comments:** A broad category of international mass-market lagers ranging from up-scale American lagers to the typical “import” or “green bottle” international beers found in America. *This category can also represent American light lagers made from Pre-Prohibition recipes. Premium beers tend to have fewer adjuncts than Standard/or Lite American Lagers, and can be all-malt. Versions made with rice or entirely with malt have a more neutral flavor profile and are often considered to be superior. While strong flavors are style a fault, premium lagers can have more flavor than Standard/and Lite lagers.*

**Ingredients:** Two- or six-row barley with up to 25% rice or corn as adjuncts. *Otherwise, as for Lite American Lager - although enzymes have never been used to lighten the body and commercial examples don't generally need artificial heading agents.*

**Technique:** As for Lite American Lager.

**History:** An adaptation of Munich Helles made using ingredients available to American brewers. *Post-Prohibition versions were generally lower in alcohol. International versions were created in response to the popularity of Standard American Lager, but with fewer adjuncts - or none at all - in order to comply with local laws and tastes. Otherwise, notes for Standard American Lager apply.*

**Commercial Examples:** Full Sail Session Premium Lager, Miller Genuine Draft, Corona Extra, Michelob, Coors Extra Gold, Birra Moretti, Heineken, Beck's, Stella Artois, Red Stripe, Singha.

## 1D. Munich Helles

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		Low - moderately-low	None-Low	Low	Med. yellow - Lt. Gold	Clear		White				
<b>Character:</b>	Pleasantly grainy-sweet, clean Pils malt	Spicy noble		DMS (from Pils malt)			Creamy					
<b>Optional:</b>												
<b>Unacceptable:</b>	Overly sweet		Diacetyl, Esters									
Flavor						Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low	Low-Moderately Low	Low - Moderately Low	None-Low	Malt-centered	Remains malty		Medium	Medium		None	
<b>Character:</b>	Slightly sweet malty	Supportive	Spicy noble	Clean	Grain and Pils malt		Smooth maltiness					
<b>Optional:</b>						Slight acidity or dry "sting" from high carbonation						
<b>Unacceptable:</b>	Overly sweet			Diacetyl, Fruity esters								
	<b>OG:</b> 1.045 - 1.051		<b>FG:</b> 1.008 - 1.012		<b>ABV:</b> 4.7 - 5.4%		<b>IBU:</b> 16 - 22			<b>SRM:</b> 3 - 5		

**Overall Impression:** Malty but fully attenuated Pils malt showcase.

**History:** Created in Munich in 1895 at the Spaten brewery by Gabriel Sedlmayr *III* to compete with Pilsner-style beers.

**Comments:** Unlike Pilsner but like its cousin, Munich Dunkel, Helles is a malt-accentuated beer that is not overly sweet, but rather focuses on malt flavor with underlying hop bitterness in a supporting role.

**Ingredients:** Moderate carbonate water, Pilsner malt, German noble hop varieties. *German lager yeast. Arguably, made from water treated to reduce its carbonate and sulfate levels, and mashed with a small percentage of acidulated pilsner malt in the mash to keep the very light color and malty profile while still complying with German brewing law.*

**Techniques:** Traditionally, a single decoction mash was used, with a protein/acid rest to aid in the conversion of undermodified pilsener malt and to reduce mash pH before the mash was heated to starch conversion temperatures. Modern versions use a step mash. Mashing takes place at slightly warmer temperatures to produce a more dextrinous wort. It is also possible that sour-mashing or a portion of lactic-soured wort was added to the mash to bring it into the proper pH range. Primary fermentation for 2 weeks at 32-34° F, lagered for 6-8 weeks at same temperature, possibly with a Diacetyl rest of 2-3 days at ~50° F.

**Commercial Examples:** Weihenstephaner Original, Hacker-Pschorr Münchner Gold, Bürgerbräu Wolznacher Hell Naturtrüb, Mahr's Hell, Paulaner Premium Lager, Spaten Premium Lager, Stoudt's Gold Lager.

## 1E. Dortmunder Export

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Moderate	Low - Medium	None-Low	Low	Lt. Gold - Dk. gold	Clear		White	Med. Long			
<b>Character:</b>	Grainy-Somewhat sweet, clean Pils malt	Noble		Sulfur (from water or yeast)								
<b>Optional:</b>	DMS (from malt)											
<b>Unacceptable:</b>	Overly sweet		Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low				Balanced	Remains malty		Medium	Medium			
<b>Character:</b>	Malty sweetness			Clean	Pils malt & noble hops. Smooth yet crisply refreshing	Balanced. Hop bitterness lingers in aftertaste.	Smooth maltiness	firm malty				
<b>Optional:</b>						Slightly sweet	Mineral character (from water), usually low.					
<b>Unacceptable:</b>	Overly sweet			Diacetyl, Fruity esters								
	<b>OG:</b> 1.048 - 1.056		<b>FG:</b> 1.010 - 1.015		<b>ABV:</b> 4.8 - 6.0%		<b>IBU:</b> 23 - 30			<b>SRM:</b> 4 - 6		

**Overall Impression:** Balance and smoothness are the hallmarks of this style. It has the malt profile of a Helles, the hop character of a Pils, and is slightly stronger than both.

**History:** A style developed in 1873, in response to the Pilsener style, for a consortium of local breweries in Dortmund, Germany, by brewmaster Fritz Brinkhoff. The style was so successful with local industrial workers that the brewery, Dortmund Union, became country's largest, giving Dortmund the highest concentration of breweries in Germany. There were originally two varieties: the Lagerbier and the slightly stronger Export at around 5.5% ABV. The weaker version proved less popular and was eventually dropped. After WW II, Export was the most popular type of beer in Germany until 1970, until supplanted by Pils. In recent years, sales of Dortmunder have been on the decline, leading to the bankruptcy of Dortmund Union in 1994. In recent years, however, there have been signs of rebounding sales.

**Comments:** Brewed to a slightly higher starting gravity than other light lagers, providing a firm malty body and underlying maltiness to complement the sulfate-accentuated hop bitterness. The term "Export" is a term commonly used by breweries to indicate a beer of higher-than-normal strength, and is not strictly synonymous with the "Dortmunder" style. Beer from other cities or regions can be brewed to Export strength, and labeled as such. The term "Export" also has no legal meaning in Germany - for tax purposes, Dortmunder Export is considered to be a "vollbier." Arguably, the upper limit of ABV listed, 6.0%, is incorrect, since German Vollbier is limited to 5.5% ABV due to a starting gravity of no more than 14° P. Breweries outside of Germany are under no such restrictions, however.

**Ingredients:** Minerally water with high levels of sulfates, carbonates and chlorides, German or Czech noble hops, Pilsner malt, German lager yeast. Arguably, water for this style of beer is treated to reduce carbonates and sulfates, since it is difficult to brew the beer correctly otherwise. It might also be mashed with a small percentage of acidulated pilsner malt in the mash to keep the very light color and malty profile while still complying with German brewing law.

**Techniques:** Single decoction mash is traditional, starting with a protein rest. Modern versions use a step mash. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 6 weeks.

**Commercial Examples:** DAB Export, Dortmund Union Export, Dortmund Kronen, Ayinger Jahrhundert, Great Lakes Dortmunder Gold, Barrel House Duveneck's Dortmunder, Bell's Lager, Dominion Lager, Gordon Biersch Golden Export, Flensburger Gold.

\* 2A. German Pilsner (Pils)

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Light				Straw-Lt. gold	Brilliant - V. clear		White	Long-lasting			
<b>Character:</b>	Grainy, Pils malt	flowery or spicy noble	Clean				Creamy					
<b>Optional:</b>	Graham cracker-like, low background notes of DMS			initial sulfury (from water or yeast)								
<b>Unacceptable:</b>			Diacetyl, Fruity esters									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. Low- Med.	Medium	Low-High		Hop bitterness dominates	Hoppy		Moderately Light	Med-High			
<b>Character:</b>	well attenuated		German Noble	Clean	Crisp and bitter	Dry - Med. Dry						
<b>Optional:</b>	Some grainy & slight Pils malt sweetness											
<b>Unacceptable:</b>				Diacetyl, Fruity Esters								
	<b>OG:</b> 1.044 - 1.050		<b>FG:</b> 1.008 - 1.013		<b>ABV:</b> 4.4 - 5.2%		<b>IBU:</b> 25 - 45			<b>SRM:</b> 2 - 5		

**Overall Impression:** Crisp, clean, refreshing beer that prominently features noble German hop bitterness accentuated by sulfates in the water.

**History:** A copy of Bohemian Pilsener adapted to brewing conditions in Germany.

**Comments:** Drier and crisper than a Bohemian Pilsener with a bitterness that tends to linger more in the aftertaste due to higher attenuation and higher-sulfate water. Lighter in body and color, and with higher carbonation than a Bohemian Pilsener. Modern examples of German Pilsners tend to become paler in color, drier in finish, and more bitter as you move from South to North in Germany.

\* **Ingredients:** Pilsner malt, German hop varieties (especially noble varieties such as Hallertauer, Tettnanger and Spalt for taste and aroma), medium sulfate water, German lager yeast. Arguably, water is treated to reduce carbonates and sulfates, and the mash is treated with acidulated malt or sour-mashed wort, as described for the Dortmund Export style.

\* **Techniques:** Single decoction mash is traditional, starting with a protein rest. Modern versions use a step mash. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 6 weeks.

**Commercial Examples:** Victory Prima Pils, Bitburger, Warsteiner, Trumer Pils, Old Dominion Tupper's Hop Pocket Pils, König Pilsener, Jever Pils, Left Hand Polestar Pilsner, Holsten Pils, Spaten Pils, Brooklyn Pilsner.

\* 2B. Bohemian Pilsener

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich				V. Lt. Gold - Dk. Gold	Brilliant - V. clear		White	Long-lasting			
<b>Character:</b>	Complex	spicy, floral Saaz hop	Clean				Dense					
<b>Optional:</b>	Graham cracker-like, low background notes of DMS		Pleasant, restrained diacetyl	initial sulfury (from water or yeast)								
<b>Unacceptable:</b>			Fruity esters									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich	Prominent	Low-High			Balanced		Medium	Medium			
<b>Character:</b>	Complex	Soft and rounded	Spicy Saaz	Clean	Crisp and bitter	Dry - Med. Dry						
<b>Optional:</b>	Some grainy & slight Pils malt sweetness			Low Diacetyl				Increased perception of body due to Diacetyl				
<b>Unacceptable:</b>		Harsh		Fruity Esters		Lingering Hop Bitterness						
	<b>OG:</b> 1.044 - 1.056		<b>FG:</b> 1.013 - 1.017		<b>ABV:</b> 4.2 - 5.4%		<b>IBU:</b> 35 - 45			<b>SRM:</b> 3.5 - 6		

**Overall Impression:** Crisp, complex and well-rounded yet refreshing.

**History:** The original clear, light-colored lager beer. It was first brewed in 1842, at the Bürger Brauerei (now Plzeňský Prazdroj), in the city of Pilsen, in what is now the Czech Republic, by Josef Groll using Bavarian lager yeast and local ingredients - pale malt, extremely soft water and Saaz hops. The new style was a sensation and was soon exported across Europe. Brewers attempting to imitate the style developed German Pils, Classic American Pils, Munich Helles, Dortmund Export, Premium American Lager and Standard American Lager.

**Comments:** Traditional yeast sometimes can provide low levels of diacetyl note, which, at levels just below the threshold of taste, can create the perception of a fuller palate. Dextrins provide more body than German Pilseners. Extremely soft water provides a distinctively soft, rounded hop profile.

\* **Ingredients:** Soft water with extremely low sulfate and carbonate levels, Saaz hops, Moravian malted barley, Czech lager yeast.

\* **Techniques:** Double Decoction mash was traditional, starting with an acid rest at 95°-105° F, followed by a protein rest at about 120° F starch conversion at higher temperatures to produce a more dextrinous wort. Modern brewers use a step mash - acid and protein rests are no longer necessary. Some kettle caramelization can occur during decoction resting, but flavors created should add malt complexity, without contributing obvious melanoidin flavors and aromas. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 6 weeks.

**Commercial Examples:** Pilsner Urquell, Krušovice Imperial 12°, Budweiser Budvar (Czechvar in the US), Czech Rebel, Staropramen, Gambrinus Pilsner, Zlatý Bazant Golden Pheasant, Dock Street Bohemian Pilsner.



\* 2C. Classic American Pilsner

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low-Medium	Med. - Moderately high				Yellow-Dk. Gold	Bright	Substantial	White	Long-lasting		
<b>Character:</b>	Grainy, corn-like or sweet		Clean									
<b>Optional:</b>	Rice-based are more neutral	Noble		Low DMS (from grain or yeast)								
<b>Unacceptable:</b>			Diacetyl, Fruitness									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Moderate-Moderately High	Med.-High	Med.-High		Hoppy			Medium	Med.-High	Creamy		
<b>Character:</b>	Similar to, but lighter than, Continental Pilsner, Slight grainy, corn-like sweetness	Offsets malt	Noble	Smooth, Well-lagered				Rich		Rich		
<b>Optional:</b>	Rice-based versions crisper, drier, often lack corn-like notes											
<b>Unacceptable:</b>		Harsh aftertaste	Coarse	Diacetyl, Fruity								
	<b>OG:</b> 1.044 - 1.060		<b>FG:</b> 1.010 - 1.015		<b>ABV:</b> 4.5 - 6%		<b>IBU:</b> 25 - 40		<b>SRM:</b> 3 - 6			

**Overall Impression:** A substantial Pilsner that can stand up to the classic European Pilsners, but exhibiting the native American grains and hops available to German brewers who initially brewed it in the USA. Refreshing, but with the underlying malt and hops that stand out when compared to American Light Lagers. Maize lends a distinctive grainy sweetness. Rice contributes a crisper, more neutral character.

**History:** A version of Pilsner brewed in the USA during the late 19<sup>th</sup> century and first part of the 20<sup>th</sup> century by immigrant German brewers using Continental Pilsener yeast and brewing techniques adapted to use native American ingredients. The style died out after Prohibition but was resurrected as a home-brewed style by advocates of the hobby, notably Jeff Renner.

**Comments:** The classic American Pilsner was brewed both pre-Prohibition and post-Prohibition with some differences. OGs of 1.050-1.060 would have been appropriate for pre-Prohibition beers while gravities dropped to 1.044-1.048 after Prohibition. Corresponding IBUs dropped from a pre-Prohibition level of 30-40 to 25-30 after Prohibition.

\* **Ingredients:** Six-row barley with 20% to 30% corn or rice (either whole or flaked/torrefied) to dilute the excessive protein levels. Traditionally, native American hops such as Cluster or U.S.-grown versions of traditional continental noble hops were used. Modern noble crosses (Ultra, Liberty, Crystal) are an acceptable substitute, but modern American hops with strong piney or citrus flavors, such as Cascade, are inappropriate. Moderate to low hardness water - high mineral content can lead to an inappropriate coarseness in hop flavor and harsh hop aftertaste.

**Techniques:** Cereal mash is traditional, and might still be required if using ground (rather than flaked/torrefied grains or syrups). Late hop additions or first-wort hopping can be used to increase hop flavor and aroma. Dry hopping is inappropriate. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 6 weeks.

**Commercial Examples:** None.

### 3A. Vienna Lager

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Moderate	None-Low			Lt. Reddish Amber-Copper	Bright	Large	Off-white	Persistent			
<b>Character:</b>	Rich Vienna/Munich malt	Noble	Clean									
<b>Optional:</b>	Light toasted											
<b>Unacceptable:</b>	Caramel		Diacetyl, Fruity Esters									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Soft		None-Low		Malt-forward	Fairly dry		Med. Light Med.	Moderate	Gentle		Moderately crisp finish
<b>Character:</b>	Elegant, complex, some toasted	Balances malt	Noble		Balanced	Malt and hop bitterness present					Smooth	
<b>Optional:</b>												Bit of alcohol warming
<b>Unacceptable:</b>	Roasted, caramel					Sweetness						
	<b>OG:</b> 1.046 - 1.052		<b>FG:</b> 1.010 - 1.014		<b>ABV:</b> 4.5 - 5.5%		<b>IBU:</b> 18 - 30			<b>SRM:</b> 10 - 16		

**Overall Impression:** Characterized by soft, elegant maltiness that dries out in the finish to avoid becoming sweet. *Lighter malt character overall than Oktoberfest, yet still decidedly balanced toward malt.*

**History:** *The original amber lager, developed by Anton Dreher in 1841 using Bavarian-style bottom-fermentation techniques (although lager yeast was not isolated until 1883) and modern brewery operations developed from those in the UK. Nearly extinct in its area of origin by 1900, the style continued in Mexico where it was brought by Santiago Graf and other Austrian immigrant brewers in the late 1800s. Regrettably, most modern Mexican examples use adjuncts which lessen the rich malt complexity characteristic of the best examples of this style. The style owes much of its character to Vienna malt, which is kilned to a darker color than Pilsner malt, but which still retains enough diastatic ability to convert its own starches.*

**Comments:** *Since the original style is almost extinct, it is somewhat open to brewer interpretation. American versions can be a bit stronger, drier and bitterer due to the substitution of American malt, or lower-quality continental malt, for some of the grain bill. Authentic European versions use the highest-quality continental malt - sometimes using just Vienna malt, or a mixture of Vienna with a bit of Munich malt - and fewer hops, so they tend to be sweeter. Mexican examples usually substitute adjuncts for some of the malt, but any more than a small amount turns the beer into a sweet version of Dark American Lager.*

**Ingredients:** *Authentic versions are made using finest-quality Vienna or Munich malt, continental hops (preferably noble varieties), German or Vienna lager yeast, and moderately hard, carbonate-rich water. They can use some caramel malts and/or darker malts to add color and sweetness, but caramel malts shouldn't add significant aroma and flavor and dark malts shouldn't provide any roasted character. American versions can substitute a bit of American pale malt for some of the Vienna/Munich malt, while Mexican versions can substitute a small amount of adjuncts (preferably relatively neutral-flavored - such as rice), but versions noticeable adjunct flavor, or which lack Vienna/Munich malt complexity and body are better classed as Dark American Lager.*

**Technique:** *Single decoction mash is traditional, starting with a protein rest and raising the mash temperature to the high end of saccharification temperatures, in order to provide sweeter wort. Modern brewers use a step mash. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 6 weeks.*

**Commercial Examples:** Great Lakes Eliot Ness (unusual in its 6.2% strength and 35 IBUs), Boulevard Bobs 47 Munich-Style Lager, Negra Modelo, Old Dominion Aviator Amber Lager, Gordon Biersch Vienna Lager, Capital Wisconsin Amber, Olde Saratoga Lager, Penn Pilsner.

\* 3B. Oktoberfest/Märzen

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich	None			Dk. Gold - Deep Orange- Red	Bright		Off-White				
<b>Character:</b>	Munich/Vienna malt		Clean				Solid					
<b>Optional:</b>	Light to moderate toasted											
<b>Unacceptable:</b>	Caramel		Diacetyl, Fruity Esters									
Flavor						Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Moderate	None- Low		Malt- forward			Medium	Medium	Creamy	Smooth	
<b>Character:</b>	Initially sweet, distinctive, complex			Clean		Moderately dry		Creamy				
<b>Optional:</b>	Toasted											
<b>Unacceptable:</b>	Caramel, Roasted			Diacetyl, Fruity Esters		Sweet, Cloying						Sweet, Cloying
	<b>OG:</b> 1.050 - 1.057		<b>FG:</b> 1.012 - 1.016		<b>ABV:</b> 4.8 - 5.7%		<b>IBU:</b> 20 - 28				<b>SRM:</b> 7 - 14	

**Overall Impression:** Smooth, clean, and rather rich, with a depth of malt character. This is one of the classic malty styles, with a maltiness that is often described as soft, complex, and elegant but never cloying.

**History:** Credited to Gabriel Sedlmayr II, based on an adaptation of the Vienna Lager style developed by his friend and colleague, Anton Dreher, but continuing in the Bavarian tradition of Märzen beers. Märzen beer derived from a 16<sup>th</sup> century Bavarian law prohibiting the brewing of beer between Michaelmas (September 29) and Saint George's Day (April 23). At the end of the season, brewers would create well-hopped, stronger beers, which they stored in cold caves or cellars. In autumn, beer not consumed during the summer would be sold off to make room in the kegs for the first beer of the new season. Since 1810, it often accompanies traditional Oktoberfest celebrations. German brewers exported the style to the U.S., where it remains popular as a fall seasonal specialty.

**Comments:** The term Oktoberfest is an appellation contrôlée, which, in Europe, can only be applied to Märzen-style beers brewed in or around Munich for the annual Oktoberfest. Similar beers brewed elsewhere are called Märzen or Fest beers, with the latter term usually indicating a slightly stronger beer brewed for a special occasion. Traditional and export German versions are typically orange-amber in color, and have a distinctive toasty malt character. Domestic German Oktoberfest or Fest beers tend to be golden in color, lighter and sweeter in flavor, without toasty notes, and are reminiscent of a strong Pils-dominated Helles. German beer tax law limits the OG of German examples of style at 14°P (placing it in the Vollbier category). American examples can be stronger. Many American versions are also thinner-bodied and have a drier malt finish, due to the use of American malts for some of the grain bill, but examples with noticeably thinner body and drier finish should be entered in the Dark American Lager category.

\* **Ingredients:** Grist varies, although German Vienna malt is often the backbone of the grain bill, with some Munich malt, Pils malt, and possibly some crystal malt. To develop the most traditional malt profile, use only the finest quality Austrian, German or Czech two-row barley malt. Continental hops, especially noble varieties, are most authentic, although American versions can substitute North American-grown continental hops or hops derived from continental varieties (e.g., Mount Hood). Somewhat alkaline water (up to 300 PPM), with significant carbonate content is welcome. German lager yeast.

\* **Technique:** Single decoction mash is traditional, starting with a protein rest and raising the mash temperature to the high end of saccharification temperatures, in order to provide sweeter wort and to develop the rich malt profile. Modern brewers use a step mash. Primary fermentation lasts about 2 weeks at 52-54° F, lagering lasts about 8 weeks.

**Commercial Examples:** Paulaner Oktoberfest, Ayinger Oktoberfest-Märzen, Hacker-Pschorr Original Oktoberfest, Hofbräu Oktoberfest, Victory Festbier, Great Lakes Oktoberfest, Spaten Oktoberfest, Capital Oktoberfest, Gordon Biersch Märzen, Goose Island Oktoberfest, Samuel Adams Oktoberfest (a bit unusual in its late hopping)

## 4A. Dark American Lager

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	No-Little	None-Light		None-Med. Low	Dk. Amber - Dk, Brown	Bright		Usually light tan	Might not be long-lasting			
<b>Character:</b>		spicy or floral		Roast & Caramel malt	Ruby highlights							
<b>Optional:</b>			Low levels of green apples, DMS, or fruitiness									
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Low-Med.	None-Low					Light-Moderately Light	High	Smooth		
<b>Character:</b>	Low-Med. Sweetness, No-Med. Low caramel or roasted					Moderately crisp						
<b>Optional:</b>	hints of coffee, molasses or cocoa			very light fruitiness								
<b>Unacceptable:</b>	Burnt or moderately strong roasted			Diacetyl								
	<b>OG:</b> 1.044 - 1.056	<b>FG:</b> 1.008 - 1.012		<b>ABV:</b> 4.2 - 6%		<b>IBU:</b> 8 - 20			<b>SRM:</b> 14 - 22			

**Overall Impression:** A somewhat sweeter version of standard/premium lager with a little more body and flavor.

**Comments:** A broad range of international lagers that are darker than pale, and not assertively bitter and/or roasted.

**Ingredients:** Two- or six-row barley, possibly with corn or rice as adjuncts. Light use of caramel and darker malts to provide color, if not flavor. Commercial versions may use coloring agents, but these aren't the best examples of the style. Hops, water and yeast are similar to those for a Premium American Lager, although adjunct-laden or thin-bodied American and Mexican interpretations of the Amber Lager style might use Vienna Lager or Oktoberfest as a starting point.

**Technique:** Cereal mash is common if adjuncts are used, although step or single-temperature infusion mash is suitable if adjuncts in the mash take the form of torrefied or flaked grains, or if syrups are added to the kettle. Starch conversion rest is generally at lower temperatures to produce thinner, more fermentable wort. High gravity brewing is commonly used to increase production volume. Commercial versions are highly filtered and force carbonated to help attain thin body, brilliant clarity and high carbonation. Some also add artificial heading and coloring agents after filtration, just before the beer is packaged. Primary fermentation is 1-2 weeks at 32-34° F, followed by 3-6 weeks of lagering at the same temperature. Commercial breweries use various methods of speeding up fermentation and conditioning time.

**Commercial Examples:** Dixie Blackened Voodoo, Shiner Bock, San Miguel Dark, Baltika #4, Beck's Dark, Saint Pauli Girl Dark, Warsteiner Dunkel, Heineken Dark Lager, Crystal Diplomat Dark Beer

## 4B. Munich Dunkel

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich	Slight			Dk. Copper - Dk, Brown	Clear		Light-Med. Tan				
<b>Character:</b>	Munich sweetness, like bread crusts, sometimes toast	noble hop					Creamy					
<b>Optional:</b>	Low chocolate, nuts, caramel, and/or toffee				Red or garnet tint	Murky & unfiltered						
<b>Unacceptable:</b>			Diacyl, Fruity esters									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich	Med. Low	None-Low		Malt-focused	Medium-dry		Med. - Med. Full				
<b>Character:</b>	Complex Munich, usually reminiscent of bread crusts	Perceptible	Noble	Clean	moderately sweet	Balanced towards malt				Firm & Dextrinous		
<b>Optional:</b>	Mild caramel, chocolate, toast or nuttiness			Yeast, earthy richness in unfiltered versions		Hop bitterness may become apparent					Light	Slight alcohol warming
<b>Unacceptable:</b>	Burnt or bitter from roast malts, caramel from crystal malt			Diacyl, Fruity esters	overwhelming or cloying sweetness					Heavy or cloying sweetness		
	<b>OG:</b> 1.048 - 1.056		<b>FG:</b> 1.010 - 1.016		<b>ABV:</b> 4.5 - 5.6%		<b>IBU:</b> 18 - 28			<b>SRM:</b> 14 - 28		

**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 it originated 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.

**Techniques:** Single decoction mash is traditional, starting with a protein rest and raising the mash temperature to the high end of saccharification temperatures, in order to provide sweeter wort and to develop the rich malt profile. Modern brewers use a step mash. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 8 weeks.

**Commercial Examples:** Ayinger Albairisch 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.

#### 4C. Schwarzbier (Black Beer)

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - Moderate	None-Low			Med.- V. Dk, Brown	Clear	Large	Tan	Persistent			
<b>Character:</b>	Clean & neutral or rich and Munich-like	Noble	Clean		Almost never truly black							
<b>Optional:</b>	Low aromatic sweetness and/or hints of roast, coffee, caramel		Light sulfur notes		Ruby - Garnet highlights							
<b>Unacceptable:</b>	Burnt		Diacetyl, Fruity Esters									
Flavor						Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Light - Moderate	Med. Low - Med.	Lt. - Med.					Med. Lt. - Med.	Med. - Med. High.		Smooth	
<b>Character:</b>	Clean & neutral to rich, sweet, Munich-like	Can last to finish	Noble	Clean		Dries out slowly and lingers, featuring hop bitterness with complementary, subtle roastiness in background						
<b>Optional:</b>	Lt. -Med. roasted flavors = bitter-chocolate					Residual Sweetness						
<b>Unacceptable:</b>	Burnt			Diacetyl, Fruity Esters							Harshness, Astringency	
	<b>OG:</b> 1.046 - 1.052		<b>FG:</b> 1.010 - 1.016		<b>ABV:</b> 4.4 - 5.4%		<b>IBU:</b> 22 - 32			<b>SRM:</b> 17 - 30		

**Overall Impression:** A dark German lager that balances roasted yet smooth malt flavors with moderate hop bitterness.

**History:** A regional specialty from southern Thuringen and northern Franconia in Germany, and probably a variant of the Munich Dunkel style.

**Comments:** In comparison with a Munich Dunkel, usually darker in color, drier on the palate and with a noticeable (but not high) roasted malt edge to balance the malt base. While sometimes called a “black Pils,” the beer is rarely that dark; don’t expect strongly roasted, porter-like flavors.

**Ingredients:** German Munich malt and Pilsner malts for the base, supplemented by a small amount of roasted malts (such as Carafa) for the dark color and subtle roast flavors. Noble-type German hop varieties and clean German lager yeasts are preferred. *Moderate carbonate water.*

**Techniques:** *Single decoction mash is traditional, starting with a protein rest and raising the mash temperature to the high end of saccharification temperatures, in order to provide sweeter wort and to develop the rich malt profile. Modern brewers use a step mash. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts about 8 weeks.*

**Commercial Examples:** Köstritzer Schwarzbier, Kulmbacher Mönchshof Premium Schwarzbier, Samuel Adams Black Lager, Krušovice Cerne, Original Badebier, Einbecker Schwarzbier, Gordon Biersch Schwarzbier, Weeping Radish Black Radish Dark Lager, Sprecher Black Bavarian

## 5A. Maibock/Helles Bock

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Med. - Strong	No - med. low			Dk. Gold - Lt. Amber	Good	Large	White	Persistent			
<b>Character:</b>		Noble	Clean				Creamy					
<b>Optional:</b>	lightly toasted and low melanoidins, DMS	Spicy	Low Fruity Esters	Alcohol								
<b>Unacceptable:</b>			Diacetyl									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich	Moderate	No - Med.				Med.	Med. - Med. High	Smooth		Alcohol warming	
<b>Character:</b>	Continental pale malt	Balanced	Noble	Clean		moderately dry, may taste of both malt and hops	Well-attenuated					
<b>Optional:</b>	Some toasty, melanoidins, Little to no carmelization, Light DMS		Low spicy or peppery				Spicy or peppery from alcohol					
<b>Unacceptable:</b>				Diacetyl, Fruity Esters		Cloying				Harshness, Astringency		
	<b>OG:</b> 1.064 - 1.072		<b>FG:</b> 1.011 - 1.018		<b>ABV:</b> 6.3 - 7.4%		<b>IBU:</b> 23 - 35		<b>SRM:</b> 6 - 11			

**Overall Impression:** A relatively pale, strong, malty lager beer. Designed to walk a fine line between blandness and too much color. Hop character is generally more apparent than in other bocks. Can be thought of as either a pale version of a traditional bock, or a Munich helles brewed to bock strength. While quite malty, this beer typically has less dark and rich malt flavors than a traditional bock. May also be drier, hoppier, and more bitter than a traditional bock. The hops compensate for the lower level of melanoidins.

**History:** A fairly recent development in comparison to the other members of the bock family. The serving of Maibock is specifically associated with springtime and the month of May. *Often accompanies the seasonal opening of a brewery or bar's biergarten.*

**Comments:** There is some dispute whether Helles ("pale") Bock and Mai ("May") Bock are synonymous. Most agree that they are identical (as is the consensus for Märzen and Oktoberfest), but some believe that Maibock is a "fest" type beer hitting the upper limits of hopping and color for the range. Any fruitiness is due to Munich and other specialty malts, not yeast-derived esters developed during fermentation. *Bock falls into the Starkbier (Strong Beer) German beer tax category and must start with a beginning gravity which exceeds 16° P.*

**Ingredients:** Base of Pils and/or Vienna malt with some Munich malt to add character (although much less than in a traditional bock). No non-malt adjuncts. Noble hops. Soft water preferred so as to avoid harshness. Clean lager yeast.

**Techniques:** *Single Decoction mash is typical, but boiling is less than in traditional bocks to restrain color development. Mashing started with a protein rest, raising the mash temperature to the high end of saccharification temperatures, in order to provide sweeter wort and to develop the rich malt profile. Modern brewers use a step mash. Primary fermentation lasts about 2 weeks at 32-34° F, lagering lasts up to 16 weeks in order to smooth out flavor.*

**Commercial Examples:** Ayinger Maibock, Mahr's Bock, Hacker-Pschorr Hubertus Bock, Capital Maibock, Einbecker Mai-Urbock, Hofbräu Maibock, Victory St. Boisterous, Gordon Biersch Blonde Bock, Smuttynose Maibock

## 5B. Traditional Bock

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Strong	None - Low	Clean		Lt. Copper - Brown	Good	Large	Off-white	Persistent			
<b>Character:</b>							creamy					
<b>Optional:</b>	Moderate rich melanoidins and/or toasty		Low Fruity Esters	Low alcohol notes	Garnet highlights							
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich		None					Med.- Med. Full	Med. Low - Med.			
<b>Character:</b>	Complex, rich Munich/Vienna - melanoidins, toasty	Supports malt		Clean, well-attenuated		A bit of sweetness lingers into finish.						
<b>Optional:</b>	Caramel											Low Alcohol warmth
<b>Unacceptable:</b>	Roasted or burnt			Diacetyl, Esters		Cloying					Harshness, astringency	Hot alcohol
	<b>OG:</b> 1.064 - 1.072		<b>FG:</b> 1.013 - 1.019		<b>ABV:</b> 6.3 - 7.2%		<b>IBU:</b> 20 - 27		<b>SRM:</b> 14 - 22			

**Overall Impression:** A dark, strong, malty lager beer.

**History:** Derived from medieval strong ale exported from the northern German city of Einbeck, which was a brewing center and popular exporter in the days of the Hanseatic League (14<sup>th</sup> to 17<sup>th</sup> century). The current version is based on a version of strong exported Einbeck beer recreated in Munich starting in the 17<sup>th</sup> century, but brewed as a lager and adapted to local Bavarian ingredients and techniques. The name “bock” is based on a corruption of the name “Einbeck” in the Bavarian dialect, and was thus only used after the beer came to Munich. “Bock” also means “billy-goat” in German, and is often used in logos and advertisements.

**Comments:** Any fruitiness is due to Munich and other specialty malts, not yeast-derived esters developed during fermentation. *Bock falls into the Starkbier (Strong Beer) German beer tax category and must start with a beginning gravity which exceeds 16° P.*

**Ingredients:** Munich and Vienna malts, rarely a tiny bit of dark roasted malts for color adjustment, never any non-malt adjuncts. Continental European hop varieties. Clean lager yeast. Water hardness can vary, although moderately carbonate water is typical of Munich.

**Techniques:** Double or even triple decoction mash is traditional, starting with a protein rest, ultimately raising the mash temperature to the high end of starch conversion temperatures to produce a sweeter, more full-bodied wort. Decoction mashing and long boiling plays an important part of flavor development, as it enhances the caramel and melanoidin flavor aspects of the malt.

**Commercial Examples:** Einbecker Ur-Bock Dunkel, Pennsylvania Brewing St. Nick Bock, Aass Bock, Great Lakes Rockefeller Bock, Stegmaier Brewhouse Bock



**\* 5C. Doppelbock**

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Very strong	None-Low			Dk. Gold - Dk. Brown	Good	Large	Light: White Dark: Off-White	Moderate			
<b>Character:</b>	Dark: Significant melanoidins, often some toasty. Light: Strong malt presence, some melanoidins and toast.						creamy					
<b>Optional:</b>	Dark: Slight chocolate. Low - Med. low dark fruit notes (prune, plum, grape)	Light: Low noble	Low-Med. Alcohol		Dark: Ruby highlights				Impaired head retention and "legs" from alcohol			
<b>Unacceptable:</b>	Roasted or burnt		Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	V. Rich	Med. Low - Med.	None-Low	Clean				Med. Full - Full	Med. Low - Med.	V. Smooth	Smooth	Low-Med.
<b>Character:</b>	Dark: Significant melanoidins and often some toasty. Light: Strong malt, some melanoidins and toasty.		Supports malt	Well attenuated.	Malt forward	Balanced - Fairly sweet						Alcohol warming
<b>Optional:</b>	Dark: Some dark fruitiness, chocolate		Light: Low hop	fusels v. low-none		Light: Drier finish						
<b>Unacceptable:</b>	Roasty or burnt			Diacetyl, Incomplete fermentation, Esters							Harshness, Astringency	Harsh, burning.
	<b>OG:</b> 1.072 - 1.112		<b>FG:</b> 1.016 - 1.024		<b>ABV:</b> 7 - 10%		<b>IBU:</b> 16 - 26			<b>SRM:</b> 6 - 25		

**Overall Impression:** A very strong and rich lager. A bigger version of either a traditional bock or a helles bock. *Pale versions will not have the same richness and darker malt flavors of the dark versions, and may be a bit drier, hoppier and more bitter. Darker versions may display caramelization and melanoidins due to decoction mashing and long boil times.*

**History:** A Bavarian specialty first brewed in Munich in the 18<sup>th</sup> century by the monks of St. Francis of Paula, likely based on the earlier monastic tradition of brewing strong beers for special occasions. Historical versions were less well attenuated, with higher sweetness and lower alcohol levels, allowing it to serve as "liquid bread" during the Lenten fast. Originally called "Salvator," literally "Savior" - in reference to Jesus Christ, but possibly with a wink towards the beer's sustaining qualities. In the early 19<sup>th</sup> century, the secularized brewery became the Paulaner Brewery, and Salvator was sold to the public. In the late 19<sup>th</sup> century Paulaner copyrighted the name Salvator. In response, its competitors gave their doppelbocks names ending in "-ator," either as a tribute to Salvator or to take advantage of the beer's popularity. The generic term "doppel (double) bock" was coined by Munich consumers in the 18<sup>th</sup> century. In Europe, Doppelbocks are often brewed to celebrate the Christmas or Easter season.

**Comments:** Most versions are dark-colored, but excellent pale versions exist. Bock falls into the Starkbier (Strong Beer) German beer tax category and must start with a beginning gravity which exceeds 16° P. Most traditional examples don't go above 10% ABV, but the style can be considered to have no upper limit for gravity, alcohol and bitterness (thus providing a home for very strong lagers). Any fruitiness is due to Munich and other specialty malts, not yeast-derived esters developed during fermentation. Sweetness comes from low hopping rates, not from incomplete fermentation.

\* **Ingredients:** Pils and/or Vienna malt for pale versions (with some Munich), Munich and Vienna malts for darker ones and occasionally a tiny bit of darker color malts (such as Carafa). Noble hops. Water hardness varies from soft to moderately carbonate. Clean lager yeast.

\* **Techniques:** Double or even triple decoction mash is traditional, starting with a protein rest, ultimately raising the mash temperature to the high end of starch conversion temperatures to produce a sweeter, more full-bodied wort. Decoction mashing and long boiling plays an important part of flavor development, as it enhances the caramel and melanoidin flavor aspects of the malt.

**Commercial Examples:** Paulaner Salvator, Ayinger Celebrator, Weihenstephaner Korbinian, Andechser Doppelbock Dunkel, Spaten Optimator, Tucher Bajuvator, Weltenburger Kloster Asam-Bock, Capital Autumnal Fire, EKU 28, Eggenberg Urbock 23°, Bell's Consecrator, Moretti La Rossa, Samuel Adams Double Bock

## 5D. Eisbock

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich, intense	None		<i>Definite</i>	Dk. Copper - Dk. Brown	Good		Off-White - Ivory	May be impaired			
<b>Character:</b>				Alcohol								
<b>Optional:</b>			Significant dark fruit esters (plum, prune, grape)		Ruby highlights				Pronounced "legs"			
<b>Unacceptable:</b>			Diacetyl	Harsh, solventy								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich		None	Clean				Full-V. Full	Low		Smooth	<i>Significant</i>
<b>Character:</b>	Sweet	<i>Offsets sweetness</i>		Significant Alcohol, dark fruity esters (plum, prune, grape)	<i>Alcohol balances malt sweetness</i>	malt and alcohol						<i>Alcohol</i>
<b>Optional:</b>	Melanoidins, toasty, some caramel, occasionally slight chocolate.					Smooth, dryness from alcohol						
<b>Unacceptable:</b>	Sticky, syrup, cloying			Diacetyl, harsh or hot alcohol							Harsh notes from alcohol, bitterness, fusels, or other strong flavors.	<i>hotness</i>
	<b>OG:</b> 1.078 - 1.120		<b>FG:</b> 1.020 - 1.035		<b>ABV:</b> 9 - 14%		<b>IBU:</b> 25 - 35			<b>SRM:</b> 18 - 30		

**Overall Impression:** An extremely strong, full and malty dark lager.

**History:** A traditional Kulmbach specialty brewed by freezing a doppelbock and removing the ice to concentrate the flavor and alcohol content (as well as any defects). *In the local dialect, Eisbock is called G'forns - meaning "something frozen."* According to legend, created by accident when an apprentice accidentally let barrels of bock beer freeze, bursting the barrels. In punishment, he was forced to drink the syrupy liquid left behind - which, of course, was delicious

**Comments:** Eisbocks are not simply stronger doppelbocks; the name refers to the process of freezing and concentrating the beer. Some doppelbocks are stronger than Eisbocks. Extended lagering is often needed post-freezing to smooth the alcohol and enhance the malt and alcohol balance. Any fruitiness is due to Munich and other specialty malts, not yeast-derived esters developed during fermentation. *Weizensbock, such as Schneider Aventinus clones, should be entered in the Specialty Beer category.*

**Ingredients & Techniques:** Same as doppelbock. Commercial eisbocks are generally concentrated anywhere from 7% to 33% (by volume), but concentrations of up to 40% are possible. *Brewers should be aware that freeze-distillation is technically illegal in many parts of the world, and can produce dangerous concentrations of fusel alcohols and other unwanted byproducts of fermentation.*

**Commercial Examples:** Kulmbacher Reichelbräu Eisbock, Eggenberg Urbock Dunkel Eisbock, Niagara Eisbock, Capital Eisphyre, Southampton Eisbock.

## 6A. Cream Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other		Color	Clarity	Head		Persistence		
							Size	Color				
<b>Intensity:</b>	Faint	None-Low				Lt. Straw - Med. Gold	Brilliant	Low-Med.	White	Fair		
<b>Character:</b>				Balanced		Usually pale		Sparkling				
<b>Optional:</b>	Sweet, corn-like, low DMS		Faint esters.									
<b>Unacceptable:</b>			Diacetyl									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low-Med.	Low-Med.			Balanced	Balanced		Light-Med.	Med- High	Thin-Med. Thin		
<b>Character:</b>				Usually well-attenuated		Somewhat dry to faintly sweet. Thirst quenching.		Crisp		Med. - High attenuation		
<b>Optional:</b>	Low-moderate corn, DMS			Low DMS, Faint fruity esters								Slight alcohol warmth
<b>Unacceptable:</b>				Diacetyl								
	<b>OG:</b> 1.042 - 1.055		<b>FG:</b> 1.006 - 1.012		<b>ABV:</b> 4.2- 5.6%		<b>IBU:</b> 15 - 20		<b>SRM:</b> 2.5 - 5			

**Overall Impression:** A clean, well-attenuated, flavorful American lawnmower beer.

**History:** An American ale, derived from 19<sup>th</sup> century English pale “sparkling” or “present use” ales, originally produced by ale breweries in the Northeast and Mid-Atlantic States to compete with German-inspired pilsners and light lagers. Lager strains were (and sometimes still are) used by some brewers, but were not historically mixed with ale strains. Many examples are kräusened to achieve carbonation. Cold conditioning isn’t traditional, although modern brewers sometimes use it.

**Comments:** Classic American (i.e., pre-prohibition) Cream Ales were slightly stronger, hoppier (including some dry hopping) and more bitter (25-30+ IBUs). *These versions should be entered in the Specialty category.* Most commercial examples are in the 1.050-1.053 OG range, and bitterness rarely rises above 20 IBUs.

**Ingredients:** American ingredients are traditional and are most commonly used. Malt is typically six-row malt, or a combination of six-row and North American two-row. Adjuncts can include up to 20% flaked maize in the mash, and up to 20% glucose or other sugars in the boil. Soft water is preferred, but moderate carbonate water is acceptable. Any variety of hops can be used for bittering and finishing, but strong hop aromas and flavors are undesirable. American ale yeast is traditional, but “West coast” varieties which produce low levels of esters are undesirable.

**Techniques:** Cereal mash is traditional, although infusion or step-mash works well if flaked/torrefied maize is substituted for grits. Some breweries use high gravity fermentation. Commercial products are highly filtered and are force carbonated.

**Commercial Examples:** Genesee Cream Ale, Little Kings Cream Ale (Hudepohl), Anderson Valley Summer Solstice Cerveza Crema, Sleeman Cream Ale, New Glarus Spotted Cow, Wisconsin Brewing Whitetail Cream Ale.

## 6B. Blonde Ale (AKA Golden Ale)

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Lt. - Med.	Low - Med			Lt. Yellow - Dk. Gold	Brilliant - Clear	Low-Med.	White	Fair-Good			
<b>Character:</b>	Sweet											
<b>Optional:</b>	Low - Med. Fruitiness											
<b>Unacceptable:</b>			Diacetyl									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Soft	Low - Med.	Low - Med.					Med. Lt - Med.	Med. - High	Smooth		
<b>Character:</b>	Malty sweet				Malt forward	Med. Dry - somewhat sweet						
<b>Optional:</b>	Light character malt (bread, toast, biscuit, wheat)			Low-Med. Esters								
<b>Unacceptable:</b>	Caramel		Overly Aggressive	Diacetyl						Harsh	Astringency	
	<b>OG:</b> 1.038 - 1.054	<b>FG:</b> 1.008 - 1.013		<b>ABV:</b> 3.8 - 5.5%		<b>IBU:</b> 15 - 28			<b>SRM:</b> 3 - 6			

**Overall Impression:** Easy-drinking, approachable, malt-oriented American craft beer. “West Coast-style” examples can have more hop character, but shouldn’t approach the levels of hop aroma, flavor and bitterness of American Pale Ale. Color should be much lighter than for American Amber Ale and shouldn’t have strong melanoidin malt flavors or aromas.

**History:** An American craft brew, originally designed by brewpubs and homebrewers to appeal to customers who are only familiar with American Lager. While “West Coast” versions can be more aggressively hop-oriented, in most areas this style is designed as an “entry-level” craft beer. This style also encompasses English “Summer Ale” or “Golden Ale”, a modern English style produced by small breweries to compete with light lagers.

**Comments:** In addition to the more common American Blonde Ale, this category can also include modern English Summer Ales, American Kölsch-style beers, American and English pale ales with a less assertive hop character, and recreations of young, light-colored, medium-strength historical English or American “Sparkling Ales.”

**Ingredients:** Generally all malt, using American or British 2-row malt, but any light-colored ale malt is acceptable. Can include up to 25% wheat malt or torrefied/flaked wheat, and some (up to 5-10%) flaked/torrefied maize or rice, or sugar syrup. Any hop variety can be used, but varieties which produce extreme, distinctive aromas or flavors should be avoided. Any ale or lager yeast is suitable - common varieties are “neutral-flavored” or “clean” American ale yeasts, English ale yeasts which produce lightly fruity esters, or German Kölsch yeast. Some versions may have honey, spices and/or fruit added, although if any of these ingredients impart anything more than subtle flavor and aroma notes they should be entered in Specialty, Spiced, Herb, Vegetable or Fruit beer categories instead.

**Techniques:** Infusion or step mash is typical. Decoction mash or long boil times cause unwanted to kettle caramelization and should be avoided. Primary fermentation and conditioning depends on yeast type. Regardless of yeast strain, some examples are cold-conditioned. Many commercial versions are filtered. Some are filtered to brilliant clarity, removing yeast and other suspended particles, and force-carbonated.

**Commercial Examples:** Pelican Kiwanda Cream Ale, Russian River Aud Blonde, Rogue Oregon Golden Ale, Widmer Blonde Ale, Fuller’s Summer Ale, Hollywood Blonde, Redhook Blonde

## 6C. Kölsch

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head			Persistence		
							Size	Color				
<b>Intensity:</b>	None - Low	None-Low	Subtle		Straw - Lt. Gold	Brilliant		White		Might not last		
<b>Character:</b>	Pils malt	Noble					Delicate					
<b>Optional:</b>			Pleasant, fruity (apple, cherry, pear). Slight winy or sulfury.									
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Soft, rounded	Med. Low - Med.	Low - Med. High	Clean	Delicate	Delicate, slightly dry		Lt. Med.	Med - Med. High	Crisp	Smooth	
<b>Character:</b>			Noble	Almost imperceptible fruity sweetness	Generally well-attenuated	Slight pucker						Generally well-attenuated
<b>Optional:</b>	Initial malt sweet. Slight wheat (rare)		Most Med. Low - Med.			Slight mineral or sulfury water or yeast character		Med. body				
<b>Unacceptable:</b>				Diacetyl, Fusels		Harsh aftertaste						
	<b>OG:</b> 1.044 - 1.050		<b>FG:</b> 1.007 - 1.011		<b>ABV:</b> 4.4 - 5.2%		<b>IBU:</b> 20 - 30			<b>SRM:</b> 3.5 - 5		

**Overall Impression:** A clean, crisp, delicately balanced beer usually with very subtle fruit flavors and aromas. Subdued maltiness throughout leads to a pleasantly refreshing tang in the finish. To the untrained taster, *Kölsch* is easily mistaken for a light lager, a somewhat subtle Pilsner, or perhaps a blonde ale.

**History:** A modern style, developed after WW2, although based on traditional, hoppier pre-war light ales. In Europe, since 1986, Kölsch is an appellation protected by the Kölsch Konvention, and is restricted to the 20 or so breweries in and around the city of Cologne (Köln). The Konvention simply defines the beer as a “light, highly attenuated, hop-accentuated, clear top-fermenting Vollbier.” By mutual agreement, the various brewers all brew the same basic beer style. Historically, cloudy unfiltered “wiess” versions of Kölsch existed, and in recent years a few Köln brewpubs have revived the style.

**Comments:** Traditionally served in a cylindrical 200 ml glass called a “Stange” by blue-coated waiters known as *Köbes*. Each Köln brewery produces a beer of different character, and each interprets the Konvention slightly differently; allow for a range of variation within the style when judging. Note that drier versions may seem hoppier or bitterer than the IBU specifications might suggest. Due to its delicate flavor and aroma, Kölsch has a relatively short shelf-life; older examples often have oxidation defects. Some Köln breweries (e.g., Dom, Hellers) are now producing young, unfiltered versions known as *Wiess* (which should be entered in the Specialty category).

**Ingredients:** German noble hops (Hallertau, Tettnang, Spalt or Hersbrucker). German Pils or pale malt. Special ale yeast with an attenuative, clean character. Up to 20% wheat may be used, but this is quite rare in authentic versions. Water can vary from extremely soft to moderately hard.

**Techniques:** Traditionally uses a step mash program, although good results can be obtained using a single rest at 149 °F. Fermented at cool ale temperatures (59-65°F) and lagered for at least a month, although many Cologne brewers ferment at 70°F and lager for no more than two weeks. Often filtered to brilliant clarity.

**Commercial Examples:** Available in Cologne only: PJ Früh, Hellers, Malzmühle, Paeffgen, Sion, Peters, Dom. Import versions available in parts of North America: Reissdorf, Gaffel; Non-German versions: Eisenbahn Dourada, Goose Island Summertime, Alaska Summer Ale, Harpoon Summer Beer, New Holland Lucid, Saint Arnold Fancy Lawnmower, Capitol City Capitol Kölsch, Shiner Kölsch

## 6D. American Wheat or Rye Beer

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low- Med.	Low-Med.			Lt. Yellow - Gold.	Brilliant - Hazy	Big	White	Long-lasting			
<b>Character:</b>	Grainy wheat or rye	Citrusy American - Floral noble	None-Med. esters									
<b>Optional:</b>	Sweetness			Slight sharpness	crisp		Suspended wheat & yeast					
<b>Unacceptable:</b>			Clove, Banana, Diacetyl									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Light- Med. Strong	Low - Med.	Low - Med.					Med. Light - Med.	Med high-high			
<b>Character:</b>	Grainy wheat or rye. Rye versions are richer and spicier.		Citrusy American - Floral noble	None-Med. esters		Moderate malty sweetness or quite dry.						
<b>Optional:</b>	light spiciness from grain					Grainy wheat or rye flavor, hop bitterness. Slightly crisp or sharp finish						Slight alcohol warmth
<b>Unacceptable:</b>				Clove, Banana, Diacetyl								
	<b>OG:</b> 1.040 - 1.055	<b>FG:</b> 1.008 - 1.013		<b>ABV:</b> 4 - 5.5%		<b>IBU:</b> 15 - 30			<b>SRM:</b> 3 - 6			

**Overall Impression:** Refreshing wheat or rye beers that can display more hop character than their Continental cousins, without the distinctive clove and banana notes of German Wheat or Rye beers and without the distinctive

**History:** An American craft brew, originally designed by brewpubs and homebrewers to appeal to customers who are only familiar with American Lager. While “West Coast” versions can be more aggressively hop-oriented, in most areas this style is designed as an “entry-level” craft beer.

**Comments:** Different variations exist, from an easy-drinking fairly sweet beer to a dry, aggressively hopped beer with a strong wheat or rye flavor. Dark versions approximating dunkelweizens (with darker, richer malt flavors in addition to the color) should be entered in the Specialty Beer category. **THE BREWER SHOULD SPECIFY IF RYE IS USED; IF NO DOMINANT GRAIN IS SPECIFIED, WHEAT WILL BE ASSUMED.**

**Ingredients:** Clean American ale yeast, but also can be made as a lager. Large proportion of wheat malt (often 50% or more, but this isn’t a legal requirement as in Germany). American or noble hops. American Rye Beers can follow the same general guidelines, substituting rye for some or all of the wheat. *Some versions may have honey, spices and/or fruit added, although if any of these ingredients impart anything more than subtle flavor and aroma notes they should be entered in Specialty, Spiced, Herb, Vegetable or Fruit beer categories instead.* Other base styles (e.g., IPA, stout) with a noticeable rye character should be entered in the Specialty Beer category (23).

**Commercial Examples:** Bell’s Oberon, Harpoon UFO Hefeweizen, Three Floyds Gumballhead, Pyramid Hefe-Weizen, Widmer Hefeweizen, Sierra Nevada Unfiltered Wheat Beer, Anchor Summer Beer, Redhook Sunrye, Real Ale Full Moon Pale Rye.

## 7A. Northern German Altbier

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Subtle	None - Low	Clean		Lt. Copper - Lt. Brown	V. Clear	Low-Med.	White - Off-white	Good			
<b>Character:</b>	sometimes grainy	Noble	Restrained esters									
<b>Optional:</b>												
<b>Unacceptable:</b>			Diacetyl									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Fairly	V. low - Med.		Hop forward		Med.-lt. - Med.	Med. - Med. high.				
<b>Character:</b>	Smooth, sometimes sweet		Noble	None - V. Low esters	Balanced by malt	Dry			Smooth			
<b>Optional:</b>	Rich, biscuity, light caramel			Slight sulfury notes		Lingering hop bitterness						
<b>Unacceptable:</b>				Diacetyl								
	<b>OG:</b> 1.046 - 1.054		<b>FG:</b> 1.010 - 1.015		<b>ABV:</b> 4.5 - 5.2%		<b>IBU:</b> 25 - 40		<b>SRM:</b> 13 - 19			

**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, the German term is obergarige lagerbier - top-fermented lager beer.* 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.

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

## 7B. California Common Beer

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low-med.	Med.-high.			Med. amber - Lt. copper	Us. clear	Medium	Off-white	Good			
<b>Character:</b>	Caramel and/or toasty	woody, rustic, minty		Malt supports hops								
<b>Optional:</b>			Lt. fruitiness									
<b>Unacceptable:</b>		Citrusy	Diacetyl.									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med.	Pronounced	Low-Med. high		Balanced	Lingering		Med.	Med.-Med. high			
<b>Character:</b>	Firm Grainy, Toasty, caramelly	Lingering	Us. woody, rustic, minty	Clean	Firm malt and lingering hops	Fairly dry, crisp						
<b>Optional:</b>	interesting			Lt. fruity esters								
<b>Unacceptable:</b>	Roast		Citrusy	Diacetyl.								
	<b>OG:</b> 1.048 - 1.054		<b>FG:</b> 1.011 - 1.014		<b>ABV:</b> 4.5 - 5.5%		<b>IBU:</b> 30 - 45			<b>SRM:</b> 10 - 14		

**Overall Impression:** A lightly fruity beer with firm, grainy maltiness, interesting toasty and caramel flavors, and showcasing the signature Northern Brewer varietal hop character.

**History:** An American West Coast original developed during the Gold Rush of 1848 and the following years. Lager brewers attempted to compensate for the lack of ice and refrigeration by using large shallow open fermenters (coolships) installed on the roof of the brewery to take advantage of the cool ambient night temperatures in the San Francisco Bay area. Gradually, the lager yeast strain evolved to thrive at the cool end of normal ale fermentation temperatures. *Probably due to the tremendous pressure the still-fermenting beer developed in the cask, it was referred to as "steam beer."* The style was popular among working people in the American West (as far east as Wisconsin) before Prohibition, but was often considered to be a low-quality, cheap beverage. After Prohibition, only Anchor Brewing of San Francisco continued to make the style. When Anchor Brewing was about to go bankrupt in the 1960s, it, and steam beer, was rescued by appliance heir and craft brewing pioneer, Fritz Maytag. Subsequently, Anchor trademarked the term "Steam Beer," so the term "California Common" has been substitute to describe the style in the American market.

**Comments:** This style is narrowly defined around the prototypical Anchor Steam example. It is superficially similar to an American pale or amber ale, yet differs in that the hop flavor/aroma is woody/minty rather than citrusy, malt flavors are toasty and caramelly, the hopping is always assertive, and a warm-fermented lager yeast is used.

**Ingredients:** Pale ale malt, American hops (usually Northern Brewer, rather than citrusy varieties), small amounts of toasted malt and/or crystal malts. Lager yeast, however some strains (often with the mention of "California" in the name) work better than others at the warmer fermentation temperatures (55 to 60°F) used. Note that some German yeast strains produce inappropriate sulfury character. Water should have relatively low sulfate and low to moderate carbonate levels.

**Commercial Examples:** Anchor Steam, Southampton Steem Beer, Flying Dog Old Scratch Amber Lager



## 7C. Düsseldorf Altbier

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich, robust	V. low - med.	Restrained		Lt. amber - dk. Copper	Brilliant	Thick	Off-white	Long-lasting			
<b>Character:</b>	Clean, complex German base malt (bready, grainy, biscuity)	Noble - peppery, floral, perfumy	fruity				Creamy					
<b>Optional:</b>						Filtration						
<b>Unacceptable:</b>			Diacetyl		Brown							
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Sturdy, rich	Assertive	Low - Med.		Balanced	Long-lasting		Med.	Med.-med. high		No-low	
<b>Character:</b>	Clean, crisp, complex		Noble - peppery, floral, perfumy		Med. high - high attenuation, assertive hop bitter	medium-dry to dry, bittersweet or nutty	Full					Light enough to be session beer
<b>Optional:</b>		Can be somewhat masked by malt (low - med.)		Some Fruity esters, Lt. sulfury notes		Lt. mineral notes						
<b>Unacceptable:</b>	Roast, harshness	Harshness		Diacetyl								
	<b>OG:</b> 1.046 - 1.054		<b>FG:</b> 1.010 - 1.015		<b>ABV:</b> 4.5 - 5.2%		<b>IBU:</b> 35 - 50			<b>SRM:</b> 11 - 17		

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

**History:** The traditional style of beer from Düsseldorf (*although modern forms probably developed in the 19<sup>th</sup> century*). “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 (*e.g., extended cold-conditioning times*). 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.*

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

## 8A. Standard/Ordinary Bitter

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Some	No-Med.	Mild - med.		Lt. Yellow - Lt. copper	Good-brilliant	Low-med.	White - off-white	<i>Med. low - med. high</i>			
<b>Character:</b>	<i>Grainy, bready</i>	UK varieties ( <i>earthy, floral, herbal, resinous</i> )	fruitiness									
<b>Optional:</b>	Caramel notes	U.S. varieties & <i>others</i>	Very low diacetyl				Low head due to low CO <sub>2</sub>					
<b>Unacceptable:</b>		Aggressive										
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Med. - high.	Low - med.	Med. low - med. high	Usually decidedly	Dry		Lt. - med. Lt.	Low - med.			
<b>Character:</b>	<i>Grainy, bready</i>		UK varieties - earthy, floral, herbal, resinous	fruity	Bitter, but doesn't completely overpower malt and yeast.							
<b>Optional:</b>	Caramel notes		U.S. varieties & <i>others</i>	Very low diacetyl	Can be more malt balanced, if still bitter				Low for cask, med. for bottled			
<b>Unacceptable:</b>		Aggressive	Aggressive									
	<b>OG:</b> 1.032 - 1.040		<b>FG:</b> 1.007 - 1.011		<b>ABV:</b> 3.2 - 3.8%		<b>IBU:</b> 25 - 35			<b>SRM:</b> 4 - 14		

**Overall Impression:** A flavorful, yet refreshing, session beer. Some examples can be more malt balanced, but this should not override the overall bitter impression. Drinkability is critical; emphasis is on the bittering hops, rather than aggressive middle and late hopping seen in American ales.

**History:** Originally a draught ale served very fresh under no pressure (gravity or hand pump only) at cellar temperatures (i.e., “real ale”). Bitter was created as a draught alternative (i.e., running beer) to country-brewed pale ale around the start of the 20<sup>th</sup> century and became widespread once brewers understood how to “Burtonize” their water to successfully brew pale beers and to use crystal malts to add a fullness and roundness of palate. (This is wrong. Ordinary bitter developed from stronger pale ales which were fashionable among the British elite as far back as the 18<sup>th</sup> century. Modern bitter was available in both bottled and cask forms by the middle of the 19<sup>th</sup> century. Modern strength bitters reflect the massive drop in British beer strengths from 1914-1945, but also weaker late 19<sup>th</sup> century pale ale styles.)

**Comments:** The lightest of the bitters, also known as just “bitter.” Some variants are brewed with just pale malt and are called golden or summer bitters (*there is considerable overlap between that style and Blonde Ale*). Most bottled or kegged versions of UK-produced bitters are higher-alcohol versions of their cask products produced for export. The IBU levels are often not adjusted, so export versions don't directly correspond to their style subcategories in Britain. The guidelines reflect the “real ale” version of the style, not the export formulations.

**Ingredients:** Pale ale, amber, and/or crystal malts, may use a bit of black malt for color adjustment. May use sugar adjuncts, corn or wheat. English hops most typical, but American & European varieties are becoming more common (particularly in the paler examples - *also used historically*). Characterful English yeast. Often medium sulfate water is used (to enhance hop bitterness extraction and perception of hop bitterness).

**Commercial Examples:** (*UK versions of:* ) Fuller's Chiswick Bitter, Adnams Bitter, Young's Bitter, Greene King IPA, Oakham Jeffrey Hudson Bitter (JHB), Brains Bitter, Tetley's Original Bitter, Brakspear Bitter, Boddington's Pub Draught.

## 8B. Special/Best/Premium Bitter

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Some	No-Med.	Mild - med.		Med. gold - med. copper	Good-brilliant	Low-med.	White - off-white	<i>Med. low - med. high</i>			
<b>Character:</b>	<i>Grainy, bready</i>	UK varieties (earthy, floral, herbal, resinous)	fruitiness									
<b>Optional:</b>	Caramel notes	Other hop types	Very low diacetyl				Low head due to low CO <sub>2</sub>					
<b>Unacceptable:</b>		Aggressive										
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Med. - high	Low - med.	Med. low - med. high	Usually decidedly	Dry		Med. lt. - med.	Low - med.			
<b>Character:</b>	<i>Grainy, bready</i>		UK varieties - earthy, floral, herbal, resinous	fruity	Bitter, but doesn't completely overpower malt and yeast.							
<b>Optional:</b>	Caramel notes		Other hop types	Very low diacetyl	Can be more malt balanced, if still bitter				Low for cask, med. for bottled			
<b>Unacceptable:</b>		Aggressive	Aggressive									
	<b>OG:</b> 1.040 - 1.048		<b>FG:</b> 1.008 - 1.012		<b>ABV:</b> 3.8 - 4.6%		<b>IBU:</b> 25 - 40			<b>SRM:</b> 5 - 16		

**Overall Impression:** *As for Standard/Ordinary bitter, but possibly a bit darker in color, richer in malt character and fuller in body.*

**History:** *As for Standard/Ordinary bitter. Best/Special/Premium bitter represents a slightly stronger, better product and might be made with better ingredients.*

**Comments:** *As for Standard/Ordinary bitter.*

**Ingredients:** *As for Standard/Ordinary bitter.*

**Commercial Examples:** Fuller's London Pride, Coniston Bluebird Bitter, Timothy Taylor Landlord, Adnams SSB, Young's Special, Shepherd Neame Masterbrew Bitter, Greene King Ruddles County Bitter, RCH Pitchfork Rebellious Bitter, Brains SA, Black Sheep Best Bitter, Goose Island Honkers Ale, Rogue Younger's Special Bitter.

**\* 8C. Extra Special/Strong Bitter (English Pale Ale)**

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head		Persistence			
							Size	Color				
<b>Intensity:</b>	Med.-med. high	Med. low - med. high	Med. low- med. high	Light	Gold - dk. copper	Good-brilliant	Low-med.	White - off-white	<i>Med. low - med. high</i>			
<b>Character:</b>	<i>Grainy, bready</i>	UK varieties ( <i>earthy, floral, herbal, resinous</i> )	fruitiness									
<b>Optional:</b>	Low - med. high caramel notes, subtler in pale versions. <i>Low nutty, biscuity notes</i>	Other varieties	Very low diacetyl	Alcohol &/or <i>minerally sulfur</i>			Low head due to low CO <sub>2</sub>					
<b>Unacceptable:</b>		Aggressive										
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. low - med. high	Med. high - high	Med. - med. high	Med. low - med. high	Balanced or somewhat bitter	Med. dry - dry	v. low - med.	Med. lt. - med. full	Low - med.			Slight
<b>Character:</b>	<i>Grainy, bready, caramel - subtler in pale versions</i>		UK varieties - earthy, floral, herbal, resinous	fruity	Bitter, but doesn't completely overpower malt and yeast.							
<b>Optional:</b>	Low nutty, biscuity		U.S. varieties	Very low diacetyl	Can be more malt balanced, if still bitter		Alcohol &/or minerally sulfur		Low for cask, med. for bottled			Alcohol warmth
<b>Unacceptable:</b>		Aggressive	Aggressive									
	<b>OG:</b> 1.048 - 1.060	<b>FG:</b> 1.010 - 1.016		<b>ABV:</b> 4.6 - 6.2%		<b>IBU:</b> 30 - 50			<b>SRM:</b> 6 - 18			

**Overall Impression:** An average-strength to moderately-strong English ale. The balance may be fairly even between malt and hops to somewhat bitter. Drinkability is critical; emphasis is still on the bittering hop addition as opposed to the aggressive middle and late hopping seen in American ales. A rather broad style that allows for considerable interpretation by the brewer.

**History:** As for *Ordinary/Standard Bitter*, but strong bitters can be seen as higher-gravity versions of best bitters (although not necessarily “more premium” since best bitters are traditionally the brewer’s finest product). Since beer is sold by strength in the UK, these beers often have some alcohol flavor (perhaps to let the consumer know they are getting their due). In England today, “ESB” is a brand unique to Fullers; in America, the name has been co-opted to describe a malty, bitter, reddish, standard-strength (for the US) English-type ale. Hopping can be English or a combination of English and American. “Pale ale” usually refers to a bottled product, while strong bitter refers to the draught/cask version. Some versions of EPA, such as Fullers ESB are survivors of an otherwise extinct style called Burton ale. These are darker in color (sometimes reddish), with more complex and prominent malt character, fuller body and higher hop bitterness, flavor and aroma than other forms of pale ale, but with less prominent yeasty esters, and possibly a minerally character due to high sulfate and calcium carbonate water.

**Comments:** As for *Special/Best bitter*, but more evident malt and hop flavors than special or best bitter. Stronger, “Burton” versions, like Fullers ESB, may overlap somewhat with old ales, while strong bitters are paler, bitterer, fruitier and hoppier. Some versions of this style are stronger versions of Summer or Golden ales (see *Ordinary/Standard Bitter*).

\* **Ingredients:** As for *Special/Best Bitter*. *Techniques:* Single infusion mash using well-modified English pale malt, possibly adjuncts added to wort kettle. Possibly wort run through hop back or dry hopped.

**Commercial Examples:** Fullers ESB, Adnams Broadside, Shepherd Neame Bishop's Finger, Young's Ram Rod, Samuel Smith's Old Brewery Pale Ale, Bass Ale, Whitbread Pale Ale, Shepherd Neame Spitfire, Marston's Pedigree, Black Sheep Ale, Vintage Henley, Mordue Workie Ticket, Morland Old Speckled Hen, Greene King Abbot Ale, Bateman's XXXB, Gale's Hordean Special Bitter (HSB), Ushers 1824 Particular Ale, Hopback Summer Lightning, Great Lakes Moondog Ale, Shipyard Old Thumper, Alaskan ESB, Geary's Pale Ale, Cooperstown Old Slugger, Anderson Valley Boont ESB, Avery 14'er ESB, Redhook ESB

## 9A-C. Scottish Ales (9A: Light 60/-, 9B: Heavy 70/-, 9C: Export 80/-)

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No-low	No-low	Low-med.	Dk. amber - dk. copper	V. clear.	Low-med.	Off-white - lt. tan				
<b>Character:</b>	Malty sweetness		Fruitiness	Peaty (earthy, smoky, light roasted)			Creamy					
<b>Optional:</b>	Low-med. kettle caramelization		Diacetyl									
<b>Unacceptable:</b>	Excessive peat malt.			Excessive smoky notes								
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. low- high	Low - med.	No-low	No-med.	Slightly - moderately		Low-med.	Med. low - med.	Low - med.	A bit	v. low	
<b>Character:</b>	Initial malty sweetness, clean			Fruitiness	Balanced towards malt	Grainy, dry	Peaty (earthy, smoky, light roasted)			creamy	roast barley	
<b>Optional:</b>	Low-med. kettle caramelization			V. low -low diacetyl								
<b>Unacceptable:</b>	Excessive peat malt.					Excessive smoky notes						
<b>Scottish Light 60/-</b>	OG: 1.030 - 1.035		FG: 1.010 - 1.013	ABV: 2.5 - 3.2%		IBU: 10 - 20		SRM: 9 - 17				
<b>Scottish Heavy 70/-</b>	OG: 1.035 - 1.040		FG: 1.010 - 1.015	ABV: 3.2 - 3.9%		IBU: 10 - 25		SRM: 9 - 17				
<b>Scottish Export 80/-</b>	OG: 1.040 - 1.054		FG: 1.010 - 1.016	ABV: 3.9 - 5.0%		IBU: 15 - 30		SRM: 9 - 17				

**Overall Impression:** Cleanly malty with a drying finish, perhaps a few esters, and on occasion a faint bit of peaty earthiness (smoke). Most beers finish fairly dry considering their relatively sweet palate, and as such have a different balance than strong Scotch ales. Stronger versions will have slightly more intense flavors and hop bitterness.

**History:** Traditional Scottish session beers reflecting the indigenous ingredients (water, malt), with less hops than their English counterparts (due to the need to import them). Long, cool fermentations are traditionally used in Scottish brewing. (*This history is wrong. By the middle of the 19<sup>th</sup> century, Scottish brewers could brew any style of beer they wanted to, and had no qualms about buying malt or hops from all over the world. This style is a modern American interpretation of early 19<sup>th</sup> century Scottish mild and bitter ales, muddled with mid-late 20<sup>th</sup> century Scottish brewing practices. 20<sup>th</sup> century Scottish ales could be higher in bitterness and lighter in color than these guidelines would suggest, and didn't have any peat character from water or yeast.*) These beers are sometimes referred to as "shilling ales" due to the 19<sup>th</sup> century British practice of designating beers by their wholesale price per barrel in shillings.

**Comments:** Malt to hop balance is slightly to moderately tilted towards the malt. Any caramelization comes from kettle caramelization, not caramel malt, and is sometimes confused with diacetyl. Smoked character is unusual, when present, it comes from yeast- or water, not peat-smoked malt. Peat malt can be used for complexity, but should be restrained; overly smoky beers should be entered in the Other Smoked Beer category (22B).

**Ingredients:** Scottish or English pale base malt. Small amounts of roasted barley add color and flavor, and lend a dry, slightly roasty finish. English hops. Clean, relatively un-attenuative ale yeast. Some commercial brewers add small amounts of crystal, amber, or wheat malts, and adjuncts such as sugar. The optional peaty, earthy and/or smoky character comes from the traditional yeast and from the local malt and water rather than using smoked malts.

**Commercial Examples Scottish Light 60/-:** Belhaven 60/-, McEwan's 60/-, Maclay 60/- Light (all are cask-only products not exported to the US)

**Commercial Examples Scottish Heavy 70/-:** Caledonian 70/- (Caledonian Amber Ale in the US), Belhaven 70/-, Orkney Raven Ale, Maclay 70/-, Tennents Special, Broughton Greenmantle

**Commercial Examples Scottish Export 80/-:** Orkney Dark Island, Caledonian 80/- Export Ale, Belhaven 80/- (Belhaven Scottish Ale in the US), Southampton 80 Shilling, Broughton Exciseman's 80/-, Belhaven St. Andrews Ale, McEwan's Export (IPA), Inveralmond Lia Fail, Broughton Merlin's Ale, Arran Dark.

## 9D. Irish Red Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No - low.	No - very low		Amber - dk. red copper	Clear	Low	Off-white - tan.	<i>Med.</i>			
<b>Character:</b>	Us. caramel, sometimes toasty or toffee-like	Us. not present ( <i>UK varieties otherwise</i> )	Clean				<i>Creamy</i>					
<b>Optional:</b>			Low diacetyl (buttery)									
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med.	Med. low.	No - low.	No - very low	<i>Somewhat</i>	Med. dry - dry		Med. lt. - med.	Med.			<i>Slight</i>
<b>Character:</b>	Initial caramel, sweetness. Lt. toasted grain in finish		Us. not present ( <i>UK varieties otherwise</i> )	Clean	Malt-focused	Toasted grain.		Med. attenuation.		V. smooth - Smooth		
<b>Optional:</b>	Buttered toast, toffee	Roast grain can increase bitterness to med.		Low diacetyl (buttery)						Slickness fr. diacetyl		Alcohol warming
<b>Unacceptable:</b>				Esters								
	<b>OG:</b> 1.044 - 1.060		<b>FG:</b> 1.010 - 1.014		<b>ABV:</b> 4.0 - 6.0%		<b>IBU:</b> 17 - 28		<b>SRM:</b> 9 - 18			

**Overall Impression:** An easy-drinking pint. Malt-focused with an initial sweetness and a roasted dryness in the finish.

**Comments:** Sometimes brewed as a lager (if so, generally will not exhibit a diacetyl character). When served too cold, the roasted character and bitterness may seem more elevated. More attenuated than Scottish Ales.

**History:** A variant of an English bitter or lager developed in Ireland in the 19<sup>th</sup> and 20<sup>th</sup> century, but only identified as a distinct style by the beer writer Michael Jackson.

**Ingredients:** May contain some adjuncts (corn, rice, or sugar), although excessive adjunct use will harm the character of the beer. Generally has a bit of roasted barley to provide reddish color and dry roasted finish. UK/Irish malts, hops, yeast.

**Commercial Examples:** Three Floyds Brian Boru Old Irish Ale, Great Lakes Conway's Irish Ale (a bit strong at 6.5%), Kilkenny Irish Beer, O'Hara's Irish Red Ale, Smithwick's Irish Ale, Beamish Red Ale, Caffrey's Irish Ale, Goose Island Kilgubbin Red Ale, Murphy's Irish Red (lager), Boulevard Irish Ale, Harpoon Hibernian Ale

## 9E. Strong Scotch Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Deeply	No - v. low	Low - med.		Dk. Copper - dk. Brown	Clear	Large	tan	Poor - med.			
<b>Character:</b>	Malty, complex, suggestive of dessert		esters									
<b>Optional:</b>	Often caramel		Low diacetyl	V. low - med. low Peaty, earthy and/or smoky Low - med alcohol.	Ruby highlights		Alcohol legs.					
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich	Low-med. low	Low-med. low	Low med. -	Malty - v. malty	Sweet - med. dry	V. low - med. low	Med. full - full	Med.			
<b>Character:</b>	Malty, Kettle caramelization, Nutty. Complex, suggestive of dessert		UK varieties	esters - plums, raisins, dried fruit	Full & sweet, malt dominates	Lt. use of roasted barley, malt lasts into finish. Balanced by alcohol warmth (mouthfeel)	roast/smoke malt					Smooth alcohol warming.
<b>Optional:</b>				Low diacetyl						Thick, chewy viscosity		
<b>Unacceptable:</b>												
	<b>OG:</b> 1.070 - 1.130		<b>FG:</b> 1.018 - 1.056		<b>ABV:</b> 6.5 - 10%		<b>IBU:</b> 17 - 35			<b>SRM:</b> 14 - 25		

**Overall Impression:** Rich, malty and usually sweet, which can be suggestive of a dessert. Complex secondary malt flavors prevent a one-dimensional impression. Strength and maltiness can vary.

**History:** Also known as a “wee heavy.” Fermented at cooler temperatures than most ales, and with lower hopping rates, resulting in clean, intense malt flavors. Well suited to the region of origin, with abundant malt and cool fermentation and aging temperature. Hops, which are not native to Scotland and formerly expensive to import, were kept to a minimum. Caramelization often is mistaken for diacetyl. *As for Scottish ale. Originally, just a stronger version of Scottish “Edinburgh” ales, sometimes designated by shilling designations (x/-) of 90/- to 120/- or more. Also known as “wee dump.”*

**Ingredients:** Well-modified pale malt, with up to 3% roasted barley. May use some crystal malt for color adjustment; sweetness usually comes not from crystal malts rather from low hopping, high mash temperatures, and kettle caramelization. A small proportion of smoked malt may add depth, though a peaty character (sometimes perceived as earthy or smoky) may also originate from the yeast and native water (*This is wrong, Scottish commercial brewers had access to well water, which wouldn't have any peat character. They also wouldn't have used peat malt. Use of peat malt is unique to American interpretations of this style, as well as distinctive Scottish craft-brewed products. It doesn't reflect traditional practice, though!*). Hop presence is minimal, although English varieties are most authentic. Fairly soft water is typical (*although Scottish commercial brewers had access to hard water and/or could adjust their water ions*).

**Commercial Examples:** Traquair House Ale, Belhaven Wee Heavy, McEwan's Scotch Ale, Founders Dirty Bastard, MacAndrew's Scotch Ale, AleSmith Wee Heavy, Orkney Skull Splitter, Inverlmond Black Friar, Broughton Old Jock, Gordon Highland Scotch Ale, Dragonmead Under the Kilt.

## 10A. American Pale Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	Med. - high	No - med.		Pale gold - dk. amber	Clear	Med. large	White - off-white	Good			
<b>Character:</b>	Clean. Supports hops	Usually citrusy	Fruity									
<b>Optional:</b>	Bready, toasty, biscuity, v. low - low caramel	V. low -med. grassy dry hop notes				Slight haze from dry hops						
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low-high	Med. - high	Us. med. - high	No - med.	Towards late hops & bitterness	Med. dry - dry		Med. lt. - med.	Med. - high			
<b>Character:</b>	Clean. Supports hops	Usually citrusy	Usually citrusy US varieties	Fruity	Malt supports	Smooth, pleasant hop bitterness				Smooth		
<b>Optional:</b>	Bready, toasty, biscuity, v. low - low caramel	V. low -med. grassy dry hop notes	V. low -med. grassy dry hop notes		Substantial malt							
<b>Unacceptable:</b>		Harsh hop bitter		Diacetyl		Harsh hop bitter					Harsh hop bitter	
	<b>OG:</b> 1.045 - 1.060		<b>FG:</b> 1.010 - 1.015		<b>ABV:</b> 4.5 - 6.2%		<b>IBU:</b> 30 - 45			<b>SRM:</b> 5 - 14		

**Overall Impression:** Refreshing and hoppy, yet with sufficient supporting malt.

**History:** A (modern, late 20<sup>th</sup> century) American adaptation of English pale ale, (developed on the U.S. West coast, reflecting indigenous ingredients (hops, malt, yeast, and water).

**Comments:** There is some overlap in color between American pale ale and American amber ale. The American pale ale will generally be cleaner, have a less caramelly malt profile, less body, and often more finishing hops. Often lighter in color, cleaner in fermentation by-products, and having less caramel flavors than English counterparts.

**Ingredients:** Pale ale malt, typically American two-row. American hops, often but not always ones with a citrusy character. American ale yeast. Water can vary in sulfate content, but carbonate content should be relatively low. Specialty grains may add character and complexity, but generally make up a relatively small portion of the grist. Grains that add malt flavor and richness, light sweetness, and toasty or bready notes are often used (along with late hops) to differentiate brands.

**Technique:** Step mash with rests at beta and alpha amylase levels, plus mash out. Wort might be run through hop-back. Beer might be dry hopped.

**Commercial Examples:** Sierra Nevada Pale Ale, Stone Pale Ale, Great Lakes Burning River Pale Ale, Bear Republic XP Pale Ale, Anderson Valley Poleeko Gold Pale Ale, Deschutes Mirror Pond, Full Sail Pale Ale, Three Floyds X-Tra Pale Ale, Firestone Pale Ale, Left Hand Brewing Jackman's Pale Ale



## 10B. American Amber Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Med. low - med. high	Low - med.	No - med.		Amber - coppery brown	V. clear	Large	Off-white	good			
<b>Character:</b>	Balances, might mask hops. Us. med. caramel notes	US varieties. Us. citrusy	<i>Fruity esters</i>									
<b>Optional:</b>		Dry hopping				Slight haze fr. dry hops						
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - high		Med. - high	No - med.	Us. balanced	Med. - full		Med. - med. full	Med. - high			Slight
<b>Character:</b>	Initial sweetness, med. caramel in middle.		US varieties. Us. citrusy	Fruity esters	<i>Malt &amp; hops supportive</i>	<i>Caramel sweetness &amp;/or hop flavor/bitter</i>				Smooth		Alcohol warming
<b>Optional:</b>	<i>V. low - low bready, toasty, biscuity</i>		Dry hopping									
<b>Unacceptable:</b>		<i>Harsh hop bitter</i>	Diacetyl			<i>Harsh hop bitter</i>					<i>Harsh hop bitter</i>	
	<b>OG:</b> 1.045 - 1.060		<b>FG:</b> 1.010 - 1.015		<b>ABV:</b> 4.5 - 6.2%		<b>IBU:</b> 25 - 40					<b>SRM:</b> 10 - 17

**Overall Impression:** Like an American pale ale with more body, more caramel richness, and a balance more towards malt than hops (although hop rates can be significant).

**History:** Known simply as Red Ales in some regions, these beers were popularized in the hop-loving Northern California and the Pacific Northwest areas before spreading nationwide. (Originated in the 1990s.)

**Comments:** Can overlap in color with American pale ales. However, American amber ales differ from American pale ales not only by being usually darker in color, but also by having more caramel flavor, more body, and usually being balanced more evenly between malt and bitterness. Should not have a strong chocolate or roast character that might suggest an American brown ale (although small amounts are OK).

**Ingredients:** Pale ale malt, typically American two-row. Medium to dark crystal malts. May also contain specialty grains which add additional character and uniqueness. American hops, often with citrusy flavors, are common but others may also be used. Water can vary in sulfate and carbonate content.

**Commercial Examples:** North Coast Red Seal Ale, Tröegs HopBack Amber Ale, Deschutes Cinder Cone Red, Pyramid Broken Rake, St. Rogue Red Ale, Anderson Valley Boont Amber Ale, Lagunitas Censored Ale, Avery Redpoint Ale, McNeill's Firehouse Amber Ale, Mendocino Red Tail Ale, Bell's Amber

## 10C. American Brown Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich		Low - med.		Lt. - v. dk. brown	Clear	Low-med.	Off-white - lt. tan				
<b>Character:</b>	Malty, sweet, often chocolate, caramel, nutty and/or toasty. Dark malt more robust than other brown ales		Fruity	Balanced malt & hops								
<b>Optional:</b>		Stronger hop aroma, citrusy aromas, &/or dry hopping										
<b>Unacceptable:</b>	Porter-like		No to med. low diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - high	Med - med. high	Low - med.	v. low - med.	Balanced - med. dry			Med. - med. full	Med. - med. high			
<b>Character:</b>	Malty, sweet, often chocolate, caramel, nutty and/or toasty. Dark malt more robust than other brown ales			fruity		Aftertaste of both malt and hops						
<b>Optional:</b>			Citrusy flavor	No - med. low diacetyl								Dry, resinous mouthfeel. Some alcohol warmth
<b>Unacceptable:</b>												
	<b>OG:</b> 1.045 - 1.060		<b>FG:</b> 1.010 - 1.016		<b>ABV:</b> 4.3 - 6.2%		<b>IBU:</b> 20 - 40		<b>SRM:</b> 18 - 35			

**Overall Impression:** Can be considered a bigger, maltier, hoppier interpretation of Northern English brown ale or a hoppier, less malty Brown Porter, often including the citrus-accented hop presence that is characteristic of American hop varieties.

**History:** A modern American style developed in the late 1980s on the West Coast by homebrewers. Originally much more aggressively hoppy. Also known as California Brown Ale or Texas Brown ale.

**Comments:** A strongly flavored, hoppy brown beer. Related to American Pale and American Amber Ales, although with more of a caramel and chocolate character, which tends to balance the hop bitterness and finish. Most commercial American Browns are not as aggressive as the original homebrewed versions, and some modern craft brewed examples. IPA-strength brown ales should be entered in the Specialty Beer category (23).

**Ingredients:** Well-modified pale malt, either American or Continental, plus crystal and darker malts should complete the malt bill. American hops are typical, but UK or noble hops can also be used. Moderate carbonate water would appropriately balance the dark malt acidity.

**Commercial Examples:** Bell's Best Brown, Smuttynose Old Brown Dog Ale, Big Sky Moose Drool Brown Ale, North Coast Acme Brown, Brooklyn Brown Ale, Lost Coast Downtown Brown, Left Hand Deep Cover Brown Ale

## 11A. Mild

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No - low.	Some		Copper, dk. Brown or mahogany	Clear	Low - med.	Off-white - tan	May be poor			
<b>Character:</b>	Wide range of malt character: can include caramelly, grainy, toasted, nutty, chocolate, or lightly roasted		Fruitiness			unfiltered			<i>Low carbonation, adjunct use, low gravity.</i>			
<b>Optional:</b>			No - v. low diacetyl		Med. amber - lt. brown							
<b>Unacceptable:</b>												
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Low - med.	No - low	<i>Low - med.</i>	<i>Balanced</i>			Lt. - med.	Low - med. low			
<b>Character:</b>	Wide range of malts: malty, sweet, caramel, toffee, toast, nutty, chocolate, coffee, roast.			Fruity. Wide range of notes: vinous, fruit, licorice, molasses, plum, raisin	<i>Malt accented</i>	Sweet or dry						
<b>Optional:</b>				No - low diacetyl		Dry, roasted finish		Fuller mouthfeel for sweeter versions			<i>Low OK in roast-based versions</i>	
<b>Unacceptable:</b>		Overpowering bitterness										
	<b>OG:</b> 1.030 - 1.038		<b>FG:</b> 1.008 - 1.013		<b>ABV:</b> 2.8 - 4.5%		<b>IBU:</b> 10 - 25			<b>SRM:</b> 12 - 25		

**Overall Impression:** A light-flavored, malt-accented beer that is readily suited to drinking in quantity. Refreshing, yet flavorful. Some versions may seem like lower gravity brown porters.

**History:** May have evolved as one of the elements of early porters. In modern terms, the name “mild” refers to the relative lack of hop bitterness (i.e., less hoppy than a pale ale, and not so strong). Originally, the “mildness” may have referred to the fact that this beer was young and did not yet have the moderate sourness that aged batches had. Somewhat rare in England, good versions may still be found in the Midlands around Birmingham. *(This history is wrong. Modern mild developed from pale mild “AK” ales which were popular in the mid- to late 19<sup>th</sup> century. In the 20<sup>th</sup> century, they darkened in color and decreased in alcoholic strength until they reached their present form by about 1930, when they reached their heyday. After that, they declined as pale ales and lagers became more popular. In the 18<sup>th</sup> and early 19<sup>th</sup> century, “mild” referred to beer served young, as opposed to “stale” or “vatted” aged beers. The modern use of mild refers to its relatively low alcoholic strength and bitterness.)*

**Comments:** Most are low-gravity session beers in the range 3.1-3.8%, although some versions may be made in the stronger (4%+) range for export, festivals, seasonal and/or special occasions. Generally served on cask; session-strength bottled versions don’t often travel well. A wide range of interpretations are possible.

**Ingredients:** Pale English base malts (often fairly dextrinous), crystal and darker malts should comprise the grist. May use sugar adjuncts. English hop varieties would be most suitable, though their character is muted. Characterful English ale yeast.

**Commercial Examples:** Moorhouse Black Cat, Gale’s Festival Mild, Theakston Traditional Mild, Highgate Mild, Sainsbury Mild, Brain’s Dark, Banks’s Mild, Coach House Gunpowder Strong Mild, Woodforde’s Mardler’s Mild, Greene King XX Mild, Motor City Brewing GhettoBlaster.

## 11B. Southern English Brown

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich	No - v. low	Med.		Lt. - dk. drown	Nearly opaque	Low - med.	Off-white - tan				
<b>Character:</b>	Malty sweet, often caramel or toffee-like		Fruity, notes of dark fruit (e.g., raisins, plums)									
<b>Optional:</b>					Almost black	Clear if visible						
<b>Unacceptable:</b>			Diacetyl									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Deep	Low	No - low		Towards malt	Sweet		Med.	Low - med.	Quite		
<b>Character:</b>	Caramel or toffee-like sweetness					Smooth malty aftertaste				Creamy, smooth		
<b>Optional:</b>	Low biscuit, coffee. No-low roasty, bitter black malt			Med. dk. fruit complexity. Low diacetyl				Perception of fuller body due to sweetness				
<b>Unacceptable:</b>												
	<b>OG:</b> 1.033 - 1.042		<b>FG:</b> 1.011 - 1.014		<b>ABV:</b> 2.8 - 4.1%		<b>IBU:</b> 12 - 20		<b>SRM:</b> 19 - 35			

**Overall Impression:** A luscious, malt-oriented brown ale, with a caramel, dark fruit complexity of malt flavor. May seem somewhat like a smaller version of a sweet stout or a sweet version of a dark mild.

**History:** English brown ales are generally split into sub-styles along geographic lines. Southern English (or “London-style”) brown ales are darker, sweeter, and lower gravity than their Northern cousins. Developed as a bottled product in the early 20<sup>th</sup> century out of a reaction against vinous vatted porter and often unpalatable mild. Well suited to London’s water supply. (*First developed by Mann’s brewery of London around 1900. During and immediately after WW I, it was extremely popular and was often used as a mixer. In modern times, it is nearly extinct. Note that the terms Southern English and Northern English brown don’t correspond perfectly along geographical lines. There were sweet brown ales in the north of England and dry versions in the south!*)

**Comments:** Increasingly rare; Mann’s has over 90% market share in Britain. Some consider it a bottled version of dark mild, but this style is sweeter than virtually all modern examples of mild.

**Ingredients:** English pale ale malt as a base with a healthy proportion of darker caramel malts and often some roasted (black) malt and wheat malt. Moderate to high carbonate water would appropriately balance the dark malt acidity. English hop varieties are most authentic, though with low flavor and bitterness almost any type could be used.

**Commercial Examples** (none available in the U.S.): Mann’s Brown Ale (bottled), Harvey’s Nut Brown Ale, Woodeforde’s Norfolk Nog

## 11C. Northern English Brown Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Light	No - low	No - low		Dk. amber - reddish brown	Clear	Low - med.	Off-white - light tan				
<b>Character:</b>	Sweet, toffee, nutty &/or caramel notes	UK varieties	Fruity esters									
<b>Optional:</b>	Toasted, biscuity, or toffee-like		V. low diacetyl									
<b>Unacceptable:</b>			Dominant esters.									
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Med. low - med.	No - low	No - low	Balanced	Med. - med. dry		Med. light - med.	Med. - med. high			
<b>Character:</b>	Malt sweetness, nutty, light caramel.		UK varieties	Fruity								
<b>Optional:</b>	Toasted, biscuity, or toffee-like			Low diacetyl (butterscotch)								
<b>Unacceptable:</b>												
	<b>OG:</b> 1.040 - 1.052		<b>FG:</b> 1.008 - 1.013		<b>ABV:</b> 4.2 - 5.4%		<b>IBU:</b> 20 - 30			<b>SRM:</b> 12 - 22		

**Overall Impression:** Drier and more hop-oriented than southern English brown ale, with a nutty character rather than caramel.

**History:** Developed by various brewers in the 1920s in response to the popularity of brown ales. The best-known example, Newcastle Brown, was developed in 1927 by Newcastle Brewing under the direction of head brewer Col. Jim Porter.

**Comments:** English brown ales are generally split into sub-styles along geographic lines. Note that the terms Southern English and Northern English brown don't correspond perfectly along geographical lines. There were sweet brown ales in the north of England and dry versions in the south!

**Ingredients:** English mild ale or pale ale malt base with caramel malts. May also have small amounts darker malts (e.g., chocolate) to provide color and the nutty character. English hop varieties are most authentic. Moderate carbonate water.

**Commercial Examples:** Newcastle Brown Ale, Samuel Smith's Nut Brown Ale, Riggwelter Yorkshire Ale, Wychwood Hobgoblin, Tröegs Rugged Trail Ale, Alesmith Nautical Nut Brown Ale, Avery Ellie's Brown Ale, Goose Island Nut Brown Ale, Samuel Adams Brown Ale

## 12A. Brown Porter

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		No - med.	No - med.		Lt. - dk. Brown	Good	Med.	Off-white - tan	Fair - good			
<b>Character:</b>	Malt aroma, with mild roastiness	UK types	Fruity									
<b>Optional:</b>	Chocolaty &/or caramelly, grainy, bready, nutty, toffee-like or sweet		Low diacetyl		Ruby highlights	May be opaque						
<b>Unacceptable:</b>												
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Med. low - med.	No - med.	Low - med	Slightly malty to slightly bitter			Med. lt. - med.	Med. low - med. high			
<b>Character:</b>	Roasty, chocolate,		UK types	Fruity			Usually fairly well attenuated					
<b>Optional:</b>	often caramel, nutty, and/or toffee, <i>low</i> , supporting coffee, licorice, biscuits or toast			No - med. low diacetyl			Can be sweeter					
<b>Unacceptable:</b>	Significant black malt (acrid, burnt, harsh roasted)											
	<b>OG:</b> 1.040 - 1.052		<b>FG:</b> 1.008 - 1.014		<b>ABV:</b> 4 - 5.4%		<b>IBU:</b> 18 - 35		<b>SRM:</b> 20 - 30			

**Overall Impression:** A fairly substantial English dark ale with restrained roasty characteristics.

**History:** Originating in England, porter evolved from a blend of beers or gyles known as “Entire.” A precursor to stout. Said to have been favored by porters and other physical laborers. (*This history is wrong. Porter developed in the 1720s as an aged and blended brown beer, sometimes brewed “entire” - where the runoff from the wort was used to brew a single batch of beer, rather than the strong first runnings being used to brew a strong beer, the sparging used to brew a middling strength beer and a final sparge used to brew a low strength one. Porter was sold in a variety of strengths, many quite strong by modern standards, and the strongest were called “stout porters.” Over its existence, it went through a variety of forms, before going extinct in the 1950s. For much of its existence, there was no functional difference between porter and stout and the primary difference between various types of English dark beer was strength rather than ingredients. Modern Brown Porter represents craft-brewed revivals by English brewers developed from the 1970s on.*)

**Comments:** Differs from a robust porter in that it usually has softer, sweeter and more caramelly flavors, lower gravities, and usually less alcohol. More substance and roast than a brown ale. Higher in gravity than a dark mild. Some versions are fermented with lager yeast. Balance tends toward malt more than hops. Usually has an “English” character. Historical versions with Brettanomyces, sourness, or smokiness should be entered in the Specialty Beer category (23).

**Ingredients:** English ingredients are most common. May contain several malts, including chocolate and/or other dark roasted malts and caramel-type malts. Historical versions would use a significant amount of brown malt. Usually does not contain large amounts of black patent malt or roasted barley. English hops are most common, but are usually subdued. London or Dublin-type water (moderate carbonate hardness) is traditional. English or Irish ale yeast, or occasionally lager yeast, is used. May contain a moderate amount of adjuncts (sugars, maize, molasses, treacle, etc.).

**Commercial Examples:** Fuller’s London Porter, Samuel Smith Taddy Porter, Burton Bridge Burton Porter, RCH Old Slug Porter, Nethergate Old Growler Porter, Hambleton Nightmare Porter, Harvey’s Tom Paine Original Old Porter, Salopian Entire Butt English Porter, St. Peters Old-Style Porter, Shepherd Neame Original Porter, Flag Porter, Wasatch Polygamy Porter

\* 12B. Robust Porter

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med. strong	Low - high	No - med.		Med. - v. dk. Brown	Clear	Full	tan	Med. - good			
<b>Character:</b>	Roasty	US or UK hops	Fruity			<i>Might be opaque</i>						
<b>Optional:</b>	Often lightly burnt, black malt notes. Lower grainy, bready, toffee-like, caramelly, chocolate, coffee, rich, and/or sweet.	Dry hopping	Low diacetyl		Almost black color. Ruby or garnet highlights							
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>												
<b>Character:</b>												
<b>Optional:</b>												
<b>Unacceptable:</b>												
	OG: 1.048 - 1.065		FG: 1.012 - 1.016	ABV: 4.8 - 6.5%		IBU: 25 - 50			SRM: 22 - 35			

**Flavor:** Moderately strong malt flavor usually features a lightly burnt, black malt character (and sometimes chocolate and/or coffee flavors) with a bit of roasty dryness in the finish. Overall flavor may finish from dry to medium-sweet, depending on grist composition, hop bittering level, and attenuation. May have a sharp character from dark roasted grains, although should not be overly acrid, burnt or harsh. Medium to high bitterness, which can be accentuated by the roasted malt. Hop flavor can vary from low to moderately high (US or UK varieties, typically), and balances the roasted malt flavors. Diacetyl low to none. Fruity esters moderate to none.

**Mouthfeel:** Medium to medium-full body. Moderately low to moderately high carbonation. Stronger versions may have a slight alcohol warmth. May have a slight astringency from roasted grains, although this character should not be strong.

**Overall Impression:** A substantial, malty dark ale with a complex and flavorful roasty character.

**History:** Stronger, hoppier and/or roastier version of porter designed as either a historical throwback or an American interpretation of the style. Traditional versions will have a more subtle hop character (often English), while modern versions may be considerably more aggressive. Both types are equally valid.

**Comments:** Although a rather broad style open to brewer interpretation, it may be distinguished from Stout as lacking a strong roasted barley character. It differs from a brown porter in that a black patent or roasted grain character is usually present, and it can be stronger in alcohol. Roast intensity and malt flavors can also vary significantly. May or may not have a strong hop character, and may or may not have significant fermentation by-products; thus may seem to have an “American” or “English” character.

\* **Ingredients:** May contain several malts, prominently dark roasted malts and grains, which often include black patent malt (chocolate malt and/or roasted barley may also be used in some versions). Hops are used for bittering, flavor and/or aroma, and are frequently UK or US varieties. Water with moderate to high carbonate hardness is typical. Ale yeast can either be clean US versions or characterful English varieties.

\* **Techniques:** *Single infusion mash. Might be “capped” with dark malt late in brewing process to minimize astringent dark grain character.*

**Commercial Examples:** Great Lakes Edmund Fitzgerald Porter, Meantime London Porter, Anchor Porter, Smuttynose Robust Porter, Sierra Nevada Porter, Deschutes Black Butte Porter, Boulevard Bully! Porter, Rogue Mocha Porter, Avery New World Porter, Bell’s Porter, Great Divide Saint Bridget’s Porter

## 12C. Baltic Porter

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Rich	None	Med.		Dk. copper - dk. brown	Clear	Thick	Tan	Persistent			
<b>Character:</b>	Malty sweetness, often caramel, toffee, nutty to deep toast, &/or licorice. Low darker malt character: chocolate, coffee or molasses.		Complex “dried fruit” esters: plums, prunes, raisins, cherries or currants. Complex alcohol, very smooth									
<b>Optional:</b>			Vinous Port-like quality			Opaque if dark						
<b>Unacceptable:</b>	Burnt		Sourness		Black							
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Rich, prominent	Med. low - med.	No - ned. Low	Low - med.	Malt-focused	Starts sweet, finishes slightly dry		Full	Med. - med. high			
<b>Character:</b>	Malty sweetness, with caramel, toffee, nutty to deep toast, molasses and/or licorice complexity. Low darker malt character: chocolate, coffee or molasses.		Slightly spicy (Saaz or Lublin)	Complex “dried fruit” esters: plums, prunes, raisins, cherries or currants. Complex alcohol, very smooth	Just enough hop bitter and dark malt to provide balance	Initial sweetness, dark malt character in middle. Low roast coffee or licorice in finish.			Can increase perception of body	Mouth-filling, smooth		Smooth alcohol warming
<b>Optional:</b>				Vinous Port-like quality				Med. body				Reduced alcohol
<b>Unacceptable:</b>	Burnt, Harsh bitter			Diacetyl						Cloying		
	<b>OG:</b> 1.060 - 1.090		<b>FG:</b> 1.016 - 1.024		<b>ABV:</b> 5.5 - 9.5%		<b>IBU:</b> 20 - 40		<b>SRM:</b> 17 - 30			

**Overall Impression:** A Baltic Porter often has the malt flavors reminiscent of an English brown porter and the restrained roast of a schwarzbier, but with a higher OG and alcohol content than either. Very complex, with multi-layered flavors.

**History:** Traditional beer from countries bordering the Baltic Sea. Derived from English porters but influenced by Russian Imperial Stouts. (*Developed by Baltic brewers from English dark ales in the early 19<sup>th</sup> century, but adapted to lager brewing in the late 19<sup>th</sup> century.*)

**Comments:** May also be described as an Imperial Porter, although heavily roasted or hopped versions should be entered as Imperial Stouts (13F) or Specialty Beers (23). Most versions are in the 7-8.5% ABV range. Weaker versions *in the 5.5-6.5% ABV range* can have medium body, reduced alcohol warmth (*and less alcohol character, sweetness and malt complexity*).

**Ingredients:** Generally lager yeast (cold fermented if using ale yeast). Debittered chocolate or black malt. Munich or Vienna base malt. Continental hops. May contain crystal malts and/or adjuncts. Brown or amber malt common in historical recipes.

**Commercial Examples:** Sinebrychoff Porter (Finland), Okocim Porter (Poland), Zywiec Porter (Poland), Baltika #6 Porter (Russia), Carnegie Stark Porter (Sweden), Aldaris Porteris (Latvia), Utenos Porter (Lithuania), Stepan Razin Porter (Russia), Nøgne ø porter (Norway), Neuzeller Kloster-Bräu Neuzeller Porter (Germany), Southampton Imperial Baltic Porter



\* 13A. Dry Stout

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Prominent	No - low	No - med. low		Dk. Brown - black	Clear	Thick	Tan - brown	Long-lasting			
<b>Character:</b>	Coffee-like roasted barley & roasted malt	UK types	esters		Garnet highlights		Creamy					
<b>Optional:</b>	Low chocolate, cocoa and/or grainy notes					Can be opaque from darkness						
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med.	Med. - high	No - med.	No - med.		Dry	Lt. - med.	Med. lt. - med. full	Low - med.		Low	
<b>Character:</b>	Roasted, grainy sharpness		UK types	fruity		Coffee-like from roasted grains.				Creamy, smooth	Roasted grain	
<b>Optional:</b>						Bittersweet or unsweetened chocolate lasting into finish	Acidic sourness	Can seem lighter in body				
<b>Unacceptable:</b>	Harsh			Diacetyl							Excessive, harsh	
	<b>OG:</b> 1.036 - 1.050		<b>FG:</b> 1.007 - 1.011		<b>ABV:</b> 4 - 5%		<b>IBU:</b> 30 - 45			<b>SRM:</b> 25 - 40		

**Overall Impression:** A very dark, roasty, bitter, creamy ale.

**History:** The style evolved from attempts to capitalize on the success of London porters, but originally reflected a fuller, creamier, more “stout” body and strength. When a brewery offered a stout and a porter, the stout was always the stronger beer (it was originally called a “Stout Porter”). Modern versions are brewed from a lower OG and no longer reflect a higher strength than porters. (In the 18<sup>th</sup> century stout was originally nothing more than a stronger version of porter, and the term “stout” could originally apply to any strong beer. The use of the term “stout” to refer to a relatively strong dark beer, as opposed to weaker porters, became current in the early 19<sup>th</sup> century. Modern style dry stout first appeared in 1817, with the invention of black “patent” malt and developed in its modern form in the 1880s when brewers were allowed to use adjuncts, such as roast barley. Irish-style stouts used more pale and dark malts, while English-style stouts continued to use a proportion of brown malt, in addition to pale and roast malt. Some versions could be, and still are, weaker, or slightly stronger, than the style guidelines allow.)

**Comments:** This is the draught version of what is otherwise known as Irish stout or Irish dry stout. Bottled versions are typically brewed from a significantly higher OG and may be designated as foreign extra stouts (if sufficiently strong). While most commercial versions rely primarily on roasted barley as the dark grain, others use chocolate malt, black malt or combinations of the three. The level of bitterness is somewhat variable, as is the roasted character and the dryness of the finish; allow for interpretation by brewers. The perception of body can be affected by the overall gravity with smaller beers being lighter in body.

\* **Ingredients:** The dryness comes from the use of roasted unmalted barley in addition to pale malt, moderate to high hop bitterness, and good attenuation. Flaked unmalted barley may also be used to add creaminess. A small percentage (perhaps 3%) of soured beer is sometimes added for complexity (generally by Guinness only). Water typically has moderate carbonate hardness, although high levels will not give the classic dry finish.

\* **Technique:** Single-infusion mash at midding or lower temperatures (balanced or highly fermentable wort). Mash might be “capped” with dark malt later in mashing process to minimize dark grain astringency. Some versions add a tiny bit of pasteurized soured beer to green beer at packaging. Nitrogen dispense is common.

**Commercial Examples:** Guinness Draught Stout (also canned), Murphy's Stout, Beamish Stout, O'Hara's Celtic Stout, Russian River O.V.L. Stout, Three Floyd's Black Sun Stout, Dorothy Goodbody's Wholesome Stout, Orkney Dragonhead Stout, Old Dominion Stout, Goose Island Dublin Stout, Brooklyn Dry Stout

## 13B. Sweet Stout

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Mild	No - low	Low - med. high		v. dk. brown - black	Clear	Thick	Tan - brown	Persistent			
<b>Character:</b>	Roasted grain	UK varieties	Fruity				Creamy					
<b>Optional:</b>	coffee and/or chocolate, cream-like sweetness		Low diacetyl			Opaque due to darkness						
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - high	Med.	No - low.	Low - med.	V. sweet - med. dry		Med. full - full	Med. full - full	Low - med.	Creamy		
<b>Character:</b>	Dark roasted grains & malts, coffee &/or chocolate. Med. - high sweetness		UK varieties	Fruity	Sweet vs. dark roast can vary. Drier = roastier.	Sweetness lasts into finish. Some drying from roast.		Enhanced by residual sweetness		Full, enhanced by residual sweetness		
<b>Optional:</b>				Low diacetyl								
<b>Unacceptable:</b>												
	<b>OG:</b> 1.044 - 1.060		<b>FG:</b> 1.012 - 1.024		<b>ABV:</b> 4 - 6%		<b>IBU:</b> 20 - 40		<b>SRM:</b> 30 - 40			

**Overall Impression:** A very dark, sweet, full-bodied, slightly roasty ale. Often tastes like sweetened espresso.

**History:** An English style of stout. Historically known as “Milk” or “Cream” stouts, legally this designation is no longer permitted in England (but is acceptable elsewhere). The “milk” name is derived from the use of lactose, or milk sugar, as a sweetener. (*Invented around 1900 as a “nourishing stout,” when sweet dark beers were popular in England and stouts were used as health tonics. Mackeson’s Milk Stout was the original, and was widely imitated, with competitors calling their versions “cream” or “butter” stouts. The UK government outlawed health claims for beer in 1945, leading to the banning of terms such as “milk stout.”*)

**Comments:** Gravities are low in England, higher in exported and US products. Variations exist, with the level of residual sweetness, the intensity of the roast character, and the balance between the two being the variables most subject to interpretation.

**Ingredients:** The sweetness in most Sweet Stouts comes from a lower bitterness level than dry stouts and a high percentage of unfermentable dextrins. Lactose, an unfermentable sugar, is frequently added to provide additional residual sweetness (*some commercial versions add fermentable sugars to pasteurized beer at packaging and force carbonate*). Base of pale malt, and may use roasted barley, black malt, chocolate malt, crystal malt, and adjuncts such as maize or treacle. High carbonate water is common.

**Commercial Examples:** Mackeson’s XXX Stout, Watney’s Cream Stout, Farson’s Lacto Stout, St. Peter’s Cream Stout, Marston’s Oyster Stout, Sheaf Stout, Hitachino Nest Sweet Stout (Lacto), Samuel Adams Cream Stout, Left Hand Milk Stout, Widmer Snowplow Milk Stout

### 13C. Oatmeal Stout

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Texture	Color	Persistence			
<b>Intensity:</b>	Mild	No - low	Low - med.	Lt.	Med. brown - black	Clear	Thick	Tan - brown	Persistent			
<b>Character:</b>	Roasted grain, often coffee-like	UK varieties common	Fruity				Creamy					
<b>Optional:</b>	Light sweetness; like coffee & cream.		V. low - med. low. diacetyl	Oatmeal		Opaque due to darkness						
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Size	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med	Med.	No - med. low	Low - med.	Med. sweet - med. dry (or very dry)			Med. full - full	Med. - med. high	Creamy		
<b>Character:</b>	Complex dark grains & oats. Oats give nutty, grainy, earthy notes.		UK varieties	Fruity	Balanced towards malt.					Smooth, silky		
<b>Optional:</b>	Milk chocolate, coffee & cream notes			V. low - med. low. diacetyl						oily slickness		
<b>Unacceptable:</b>												
	<b>OG:</b> 1.048 - 1.065		<b>FG:</b> 1.010 - 1.018		<b>ABV:</b> 4.2 - 5.9%		<b>IBU:</b> 25 - 40			<b>SRM:</b> 22 - 40		

**Overall Impression:** A very dark, full-bodied, roasty, malty ale with a complementary oatmeal flavor.

**History:** An English seasonal variant of sweet stout that is usually less sweet than the original, and relies on oatmeal for body and complexity rather than lactose for body and sweetness. (A variant of sweet stout developed around 1900. Most brands in the early 20<sup>th</sup> century had trivial levels of oatmeal in them and were nothing more than sweet stouts with a marketing gimmick. Modern interpretations use much more oatmeal.)

**Comments:** Generally between sweet and dry stouts in sweetness. Variations exist, from fairly sweet to quite dry. The level of bitterness also varies, as does the oatmeal impression. Light use of oatmeal may give a certain silkiness of body and richness of flavor, while heavy use of oatmeal can be fairly intense in flavor with an almost oily mouthfeel. When judging, allow for differences in interpretation.

**Ingredients:** Pale, caramel and dark roasted malts and grains. Oatmeal (5-10%+) used to enhance fullness of body and complexity of flavor. Hops primarily for bittering. Ale yeast. Water source should have some carbonate hardness.

**Commercial Examples:** Samuel Smith Oatmeal Stout, Young's Oatmeal Stout, McAuslan Oatmeal Stout, Maclay's Oat Malt Stout, Broughton Kinmount Willie Oatmeal Stout, Anderson Valley Barney Flats Oatmeal Stout, Tröegs Oatmeal Stout, New Holland The Poet, Goose Island Oatmeal Stout, Wolaver's Oatmeal Stout

### 13D. Foreign Extra Stout

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Texture	Color	Persistence			
<b>Intensity:</b>	Med. - high	No - low	Med. - high		Dk. Brown - black	Clear	Large	Tan - brown	Good			
<b>Character:</b>	Roasted grain	<i>UK varieties</i>	fruity				<i>Creamy</i>					
<b>Optional:</b>	Coffee, chocolate and/or lightly burnt		Sweet, licorice, dried fruit, and/or vinous	Alcohol		Opaque due to darkness						
<b>Unacceptable:</b>		Excessive aroma	Low diacetyl	Sharp, solventy								
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Size	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - high	<i>Med. low - high</i>	No - low	<i>Med - high</i>	<i>Sweet - med. dry</i>		<i>V. low</i>	Med. full - full				
<b>Character:</b>	Smooth roasted grain & malt (higher in export)	Restrained in tropical, higher in export	<i>UK varieties</i>	Fruity (lower in Export)	<i>Sweet for tropical stout, drier for export stout.</i>		<i>Brettanomyces</i>					
<b>Optional:</b>	Coffee, chocolate, light burnt grain. Quite sweet w/ out much roast or bitterness OR moderately dry			v. low diacetyl. Higher esters in tropical stouts, w/ sweet rum-like quality. Lower in FES						Smooth, creamy		Alcohol warming
<b>Unacceptable:</b>	Sharpness	High bitterness	Excessive flavor				<i>Perceptible levels</i>					Hot alcohol
	<b>OG:</b> 1.056 - 1.075		<b>FG:</b> 1.010 - 1.018		<b>ABV:</b> 5.5 - 8%		<b>IBU:</b> 30 - 70			<b>SRM:</b> 30 - 40		

**Overall Impression:** A very dark, moderately strong, roasty ale. Tropical varieties can be quite sweet, while export versions can be drier and fairly robust.

**History:** Originally high-gravity stouts brewed for tropical markets (and hence, sometimes known as “Tropical Stouts”). Some bottled export (i.e., stronger) versions of dry or sweet stout also fit this profile. Guinness Foreign Extra Stout has been made since the early 1800s. (*Export versions reflect Irish, English or Scottish examples shipped overseas. Tropical versions represent locally-made strong stouts produced in various former British colonies, often using local ingredients, such as sugar cane or molasses.*)

**Comments:** A rather broad class of stouts (actually, two different variants which should be split into different categories), these can be either fruity and sweet, dry and bitter, or even tinged with Brettanomyces (e.g., Guinness Foreign Extra Stout - *but specialty beer if such notes are detectable*). A scaled-up dry and/or sweet stout, or a scaled-down Imperial stout without the late hops. Highly bitter and hoppy versions are best entered as American-style Stouts. **Tropical:** can have can be quite sweet without much roast or bitterness, high fruity esters, smooth dark grain flavors, & restrained bitterness; often have a sweet, rum-like quality. **Export:** Lower esters, more assertive roast flavors, & higher bitterness, moderately dry.

**Ingredients:** Similar to dry or sweet stout, but with more gravity. Pale and dark roasted malts and grains. Hops mostly for bitterness. May use adjuncts and sugar to boost gravity. Ale yeast (although some tropical stouts are brewed with lager yeast).

**Commercial Examples:** **Tropical-Type:** Lion Stout (Sri Lanka), Dragon Stout (Jamaica), ABC Stout (Singapore), Royal Extra “The Lion Stout” (Trinidad), Jamaica Stout (Jamaica), **Export-Type:** Freeminer Deep Shaft Stout, Guinness Foreign Extra Stout (bottled, not sold in the US), Ridgeway of Oxfordshire Foreign Extra Stout, Coopers Best Extra Stout, Elysian Dragonstooth Stout

### 13E. American Stout

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Texture	Color	Persistence			
<b>Intensity:</b>	Med. - high	V. low - med		Low	V. dk. Brown - black	Us. opaque	Large	Tan - lt. brown	Persistent			
<b>Character:</b>	roasted malts, often roasted coffee or dark chocolate.	Often citrusy, resinous U.S. hops										
<b>Optional:</b>	Low burnt or charcoal notes.		Low - med esters.	Alcohol-derived aromatics								
<b>Unacceptable:</b>			Diacetyl									
	Flavor							Mouthfeel				
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Size	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - v. high	Med - high	Low - high			Med. - dry	Low - med.	Med. - full	Med-high - high		V. low - low	Lt. - med. strong
<b>Character:</b>	Roasted malt, often coffee, roasted coffee beans, dark or bittersweet chocolate. Low - med malt sweetness, often rich chocolate or caramel		Often citrusy, resinous U.S. hops							Somewhat creamy		Smooth alcohol warmth
<b>Optional:</b>	Low burnt coffee grounds			Low esters.		Low burnt quality	Smooth alcohol				Roast astringency	Hot, harsh
<b>Unacceptable:</b>				Diacetyl			Harshness					
	<b>OG:</b> 1.050 - 1.075	<b>FG:</b> 1.010 - 1.022		<b>ABV:</b> 5 - 7%		<b>IBU:</b> 35 - 75			<b>SRM:</b> 30 - 40			

**Overall Impression:** A hoppy, bitter, strongly roasted Foreign-style Stout (of the export variety).

**History:** A stronger, hoppier interpretation of English and Irish dry stouts, developed by American homebrewers and craft brewers in the 1970s and 80s, using locally-available ingredients.

**Comments:** Breweries express individuality through varying the roasted malt profile, malt sweetness and flavor, and the amount of finishing hops used. Generally has bolder roasted malt flavors and hopping than other traditional stouts (except Imperial Stouts).

**Ingredients:** Common American base malts and yeast. Varied use of dark and roasted malts, as well as caramel-type malts. Adjuncts such as oatmeal may be present in low quantities. American hop varieties.

**Commercial Examples:** Rogue Shakespeare Stout, Deschutes Obsidian Stout, Sierra Nevada Stout, North Coast Old No. 38, Bar Harbor Cadillac Mountain Stout, Avery Out of Bounds Stout, Lost Coast 8 Ball Stout, Mad River Steelhead Extra Stout

### 13F. Russian Imperial Stout

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - high	Low - v. high	Low - med. high	Low - high	Dk. red brown - black	Opaque		Dk. tan - dk. brown	Low - med			
<b>Character:</b>	Complex maltiness. Lt. - med. high coffee, dark chocolate, or slightly burnt	Any hop variety	Rich, complex fruity esters	Alcohol			Well-formed					
<b>Optional:</b>	Lt. - med. caramel		Dark fruit (e.g., plums, raisins, prunes). Aged can have vinous quality		Alcohol legs	Viscosity						
<b>Unacceptable:</b>	Dominant caramel notes		Sour, diacetyl	Sharp, hot, solventy								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - v. high	Med. - v. high	Med. low - v. high	Low - high	Med. sweet - med. dry	Med. sweet - med. dry	Low - high	Full - v. full	Low - med.			Low - high
<b>Character:</b>	Complex balanced or rich. Med. - v. high high coffee, dark chocolate, or slightly burnt		Any hop variety	Rich, complex fruity esters	Us. some lingering roast, hop bitter & warming	Us. some lingering roast, hop bitter & warming	Alcohol	Chewy		Velvety, luscious		Smooth alcohol warmth
<b>Optional:</b>	Lt. - med. caramel, bready, toasty. Low burnt grain, burnt currant, tarry.			Dark fruit Aged can have vinous quality	Intensity affected by aging.			Thinner body with age	Lower with age			
<b>Unacceptable:</b>	Dominant caramel notes			Sour, diacetyl			Sharp, solventy			Syrupy, underattenuated		Hot, solventy
	<b>OG:</b> 1.075 - 1.115		<b>FG:</b> 1.018 - 1.030		<b>ABV:</b> 8 - 12%		<b>IBU:</b> 50 - 90			<b>SRM:</b> 30 - 40		

**Overall Impression:** Intensely flavored, big, dark ale. Roasty, fruity, and bittersweet, with a noticeable alcohol presence. Dark fruit flavors meld with roasty, burnt, or almost tar-like sensations. Like a black barleywine with every dimension of flavor coming into play.

**History:** Brewed to high gravity and hopping level in England for export to the Baltic States and Russia. Said to be popular with the Russian Imperial Court. Today is even more popular with American craft brewers, who have extended the style with unique American characteristics. (*Developed in the late 18<sup>th</sup> c. as strong English export stout porters known to be popular at the court of Catherine the Great. Also brewed in the Russian Empire until the 20<sup>th</sup> century. Brewed in England by big brewers for domestic use and export from 19<sup>th</sup> c. until 1980s, thereafter only brewed by craft brewers. Revived and reinterpreted in the 1980s by American craft and homebrewers.*)

**Comments:** Variations exist. **American:** More bitterness, roasted character, & finishing hops. *Often higher alcohol, more neutral base malt.* **English:** More complex specialty malt character, higher, *more complex esters*). The wide range of allowable characteristics allow for maximum brewer creativity. Balance can vary with any aroma elements taking center stage. Not all possible aromas described need be present; many interpretations are possible. Aging affects the intensity, balance and smoothness of aromatics and flavors.

**Ingredients:** Well-modified pale malt, with generous quantities of roasted malts and/or grain. May have a complex grain bill using virtually any variety of malt. Any type of hops may be used. Alkaline water balances the abundance of acidic roasted grain in the grist. American or English ale yeast.

**Commercial Examples:** Three Floyd's Dark Lord, Bell's Expedition Stout, North Coast Old Rasputin Imperial Stout, Stone Imperial Stout, Samuel Smith Imperial Stout, Scotch Irish Tsarina Katarina Imperial Stout, Thirsty Dog Siberian Night, Deschutes The Abyss, Great Divide Yeti, Southampton Russian Imperial Stout, Rogue Imperial Stout, Bear Republic Big Bear Black Stout, Great Lakes Blackout Stout, Avery The Czar, Founders Imperial Stout, Victory Storm King, Brooklyn Black Chocolate Stout.

## 14A. English IPA

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Med. low - med. high	Med. - med. high	Low - med	<i>V. low - low</i>	Lt. amber - dk. copper	Clear	Good	Off-white	<i>Persistent</i>			
<b>Character:</b>		Floral, earthy, fruity			Most pale - med. amber							
<b>Optional:</b>	Med. caramel or toasty malt common	Slightly grassy dry hops	Fruity	Sulfury notes	Orange tint	Slight dry hop haze						
<b>Unacceptable:</b>		<i>Citrusy American hops</i>										
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. low - med high	Med. - high	Med. - high		Hop oriented	Med. - dry	<i>Low</i>	Med. lt. - Med.	Med. - med. high			
<b>Character:</b>	English, bready, biscuity, toasty, toffee, caramel		Floral, earthy, fruity	fruity	Malt supports hops, but evident	<i>Hop</i> bitterness	Alcohol warmth			Dry		
<b>Optional:</b>			Slightly grassy dry hops	<i>V. low</i> diacetyl		Minerally, dry finish.						
<b>Unacceptable:</b>			<i>Citrusy American hops</i>			Harsh	Oak				Hop astringency	
	<b>OG:</b> 1.050 - 1.075	<b>FG:</b> 1.010 - 1.018		<b>ABV:</b> 5 - 7.5%		<b>IBU:</b> 40 - 60			<b>SRM:</b> 8 - 14			

**Overall Impression:** A hoppy, moderately strong pale ale that features characteristics consistent with the use of English malt, hops and yeast. Has less hop character and a more pronounced malt flavor than American versions.

**History:** Brewed to survive the voyage from England to India. The temperature extremes and rolling of the seas resulted in a highly attenuated beer upon arrival. English pale ales were derived from India Pale Ales. (*Originally, a late 18<sup>th</sup> century variant of pale ale, brewed with extra hops to survive the voyage to India, but not necessarily stronger than usual. Developed in its modern form in the 1810s when Burton brewers took over the trade. Original versions were much more attenuated and might have been slightly stronger in alcohol, with a bit of Brettanomyces character. Pitch-lined barrels prevented oak character from developing. As with other English beer styles, alcoholic strength dropped precipitously during the first half of the 20<sup>th</sup> century. Modern English "London IPA" can be lower in strength than the guidelines suggest, differing from EPA styles in having much higher levels of bitterness & more aggressive late hopping. Stronger, fuller-bodied, fruitier versions - reminiscent of lower strength Old Ale or English Barleywine - might represent variants of a now extinct style called Burton ale.*)

**Comments:** A pale ale brewed to an increased gravity and hop rate. Modern versions of English IPAs generally pale in comparison (pun intended) to their ancestors. The term "IPA" is loosely applied in commercial English beers today, and has been (incorrectly - *actually, perfectly correctly: the exact definition of IPA was never standardized by UK brewers*) used in beers below 4% ABV. Generally will have more finish hops and less fruitiness and/or caramel than English pale ales and bitters. Fresher versions will obviously have a more significant finishing hop character. Intensity of hop character is usually lower than American versions. *Modern versions of English IPA will have English hop character; no citrusy, resinous American hops. Some versions might have distinct "Burton snatch" - a resinous, drying mouthfeel due to high levels of hop resins and high sulfate water.*

**Ingredients:** Pale ale malt (well-modified and suitable for single-temperature infusion mashing); English hops; English yeast that can give a fruity or sulfury/minerally profile. Refined sugar may be used in some versions. High sulfate and low carbonate water is essential to achieving a pleasant hop bitterness in authentic Burton versions, although not all examples will exhibit the strong sulfate character.

**Commercial Examples:** Meantime India Pale Ale, Freeminer Trafalgar IPA, Fuller's IPA, Ridgeway Bad Elf, Summit India Pale Ale, Samuel Smith's India Ale, Hampshire Pride of Romsey IPA, Burton Bridge Empire IPA, Middle Ages ImPaile Ale, Goose Island IPA, Brooklyn East India Pale Ale.

\* 14B. American IPA

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med. low	Med. high - high	No - med. low	Low	Med. gold - med. copper	Clear	Good	White - off-white	Persistent			
<b>Character:</b>	Clean, sweet	Am. hops: citrusy, floral, perfume-like, resinous, piney, &/or fruity										
<b>Optional:</b>		Grassy dry hops	fruity	alcohol	Orange tint	Slight dry hop haze						
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Med. high - v. high	Med. - high	Low		Med. dry - dry	V. low - low	Med. lt. - med.	Med. - med. high			No - low
<b>Character:</b>	Clean, malty		Am. hops: citrusy, floral, perfume-like, resinous, piney, &/or fruity	Neutral, clean	Malt supports hops, hops don't totally dominate	Hop bitter			Dry			Alcohol warmth
<b>Optional:</b>	Low caramel, toasty			Fruity		V. low - low sulfur	Clean, smooth alcohol					No alcohol warmth in weaker versions
<b>Unacceptable:</b>				Diacetyl		Harsh hop bitter, oak.					Hop astringency	
	<b>OG:</b> 1.056 - 1.075		<b>FG:</b> 1.010 - 1.018		<b>ABV:</b> 5.5 - 7.5%		<b>IBU:</b> 40 - 70			<b>SRM:</b> 6 - 15		

**Overall Impression:** A decidedly hoppy and bitter, moderately strong American pale ale.

**History:** An American version of the historical English style, brewed using American ingredients and attitude. (Developed in the 1970s and 1980s by American homebrewers and craft brewers, especially on the West coast and in Colorado.)

**Comments:** Malt, yeast character & body generally less than English IPA. Hop levels generally higher. Malt and yeast character generally described as “clean” - neutral, sweetish, slightly grainy malt character, absence of esters or other off flavors for yeast.

\* **Ingredients:** Pale ale malt (well-modified and suitable for single-temperature infusion mashing); American hops; American yeast that can give a clean or slightly fruity profile. Generally all-malt, but mashed at lower temperatures for high attenuation. Water character varies from soft to moderately sulfate. Versions with a noticeable Rye character (“RyePA”) should be entered in the Specialty category.

\* **Technique:** Step mash with rests at beta and alpha amylase levels, plus mash out. Wort might be run through hop-back. Beer might be dry hopped.

**Commercial Examples:** Bell’s Two-Hearted Ale, AleSmith IPA, Russian River Blind Pig IPA, Stone IPA, Three Floyds Alpha King, Great Divide Titan IPA, Bear Republic Racer 5 IPA, Victory Hop Devil, Sierra Nevada Celebration Ale, Anderson Valley Hop Ottin’, Dogfish Head 60 Minute IPA, Founder’s Centennial IPA, Anchor Liberty Ale, Harpoon IPA, Avery IPA



## 14C. Imperial IPA

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	No - med.	Med. high - v. high	No - med. low	No - med. high	Lt. amber - med. copper	Clear	Good	Off-white	Persistent			
<b>Character:</b>	Clean malty sweetness	Any variety. Resinous, grassy dry hops		alcohol								
<b>Optional:</b>		No dry hops	Fruity esters	Lack of alcohol	Orange tint	Slight dry hop haze						
<b>Unacceptable:</b>				Hot, solventy								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Med. high - v. high	High - v. high	Low		Med. dry - dry	V. low - low	Med. lt. - med.	Med. - med. high			Low - high
<b>Character:</b>	Clean, malty		Any type.	Neutral, clean	Malt supports hops, hops don't totally dominate	Long, lingering hop bitter			Dry	Smooth		Alcohol warmth
<b>Optional:</b>	Low caramel, toasty			Fruity		V. low - low sulfur	Clean, smooth alcohol					No alcohol warmth in weaker versions
<b>Unacceptable:</b>				Diacetyl		Harsh hop bitter, oak.					Hop astringency	
	<b>OG:</b> 1.070 - 1.090		<b>FG:</b> 1.010 - 1.020		<b>ABV:</b> 7.5 - 10%		<b>IBU:</b> 60 - 120			<b>SRM:</b> 8 - 15		

**Overall Impression:** An intensely hoppy, very strong pale ale without the big maltiness and/or deeper malt flavors of an American barleywine. Strongly hopped, but clean, lacking harshness, and a tribute to historical IPAs. Drinkability is an important characteristic; this should not be a heavy, sipping beer. It should also not have much residual sweetness or a heavy character grain profile.

**History:** A recent (*late 1990s*) American innovation reflecting the trend of American craft brewers “pushing the envelope” to satisfy the need of hop aficionados for increasingly intense products. The adjective “Imperial” is arbitrary and simply implies a stronger version of an IPA; “double,” “extra,” “extreme,” or any other variety of adjectives would be equally valid. (*Historically, this style might represent stronger versions of IPA, and strong 18<sup>th</sup> to 20<sup>th</sup> c. “October” or “Harvest” pale ales made using a recently picked hops. Another historical variant is “Stock” or “Keeping” ale - brewed strong and highly hopped so that it could be aged successfully, but with flavor and aroma hops at the low end of the scale for the style.*)

**Comments:** Bigger than either an English or American IPA in both alcohol strength and overall hop level (bittering and finish). Less malty, lower body, less rich and a greater overall hop intensity than an American Barleywine. Typically not as high in gravity/alcohol as a barleywine, since high alcohol and malt tend to limit drinkability. A showcase for hops.

**Ingredients:** Pale ale malt (well-modified and suitable for single-temperature infusion mashing); can use a complex variety of hops (English, American, noble). American yeast that can give a clean or slightly fruity profile. Generally all-malt, but mashed at lower temperatures for high attenuation. Water character varies from soft to moderately sulfate.

**Commercial Examples:** Russian River Pliny the Elder, Three Floyd’s Dreadnaught, Avery Majoraja, Bell’s Hop Slam, Stone Ruination IPA, Great Divide Hercules Double IPA, Surly Furious, Rogue IPA, Moylan’s Hopsickle Imperial India Pale Ale, Stoudt’s Double IPA, Dogfish Head 90-minute IPA, Victory Hop Wallop.

\* 15A. Weizen/Weissbier

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No - low	Med. - strong		Pale straw - v. dark gold	<i>Slightly hazy - opaque</i>	v. thick	White	Long-lasting			
<b>Character:</b>		noble	Clove phenols, banana esters			Wheat & yeast haze	moussy					
<b>Optional:</b>	Wheat: bready, grainy		Other fruity esters, spicy phenols. Low citrusy tartness, low - med. vanilla notes, low bubblegum notes			Brilliant clarity - Kristal versions						
<b>Unacceptable:</b>	Other malt character		Diacetyl, DMS, high esters or phenols other than clover & banana									
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	<i>V. low - med.</i>	Low - med low	No - v. low	Low - med. high	<i>Tilted towards yeast</i>	Med. dry		Med. lt. - med.	High			
<b>Character:</b>	Bready, grain wheat. Low Pils malt notes		<i>Noble</i>	Clove phenols, banana esters	<i>Malt supports, hops just to balance sweetness</i>	<i>Light spritzy finish.</i>	Well-rounded, flavorful		Effervescent	Fluffy, creamy, light spritzy		
<b>Optional:</b>				Other fruity esters, spicy phenols. Low citrusy tartness, low - med. vanilla notes, low bubblegum notes				Increased body from yeast.				
<b>Unacceptable:</b>				Diacetyl, DMS, high esters or phenols other than clover & banana				Heavy				
	<b>OG:</b> 1.044 - 1.052		<b>FG:</b> 1.010 - 1.014		<b>ABV:</b> 4.3 - 5.6%		<b>IBU:</b> 8 - 15		<b>SRM:</b> 2 - 8			

**Overall Impression:** A pale, spicy, fruity, refreshing wheat-based ale.

**History:** A traditional wheat-based ale originating in Southern Germany that is a specialty for summer consumption, but generally produced year-round. (*Developed from medieval wheat beers in the 18<sup>th</sup> and 19<sup>th</sup> centuries. The modern form dates to the middle of the 19<sup>th</sup> century when the royal family sold the rights to brew wheat beer to commoners, especially George Schieder. Until the 1960s, wheat beers were a rare specialty style, until they became popular with young, health-conscious beer drinkers who appreciated the “natural” qualities of cloudy, yeast-rich wheat beer. Now the style is extremely popular both in Germany and elsewhere.*)

**Comments:** These are refreshing, fast-maturing beers that are lightly hopped and show a unique banana-and-clove yeast character. These beers often don't age well and are best enjoyed while young and fresh. The version “mit hefe” is served with yeast sediment stirred in; the krystal version is filtered for excellent clarity. Bottles with yeast are traditionally swirled or gently rolled prior to serving. The character of a krystal weizen is generally fruitier and less phenolic than that of the hefe-weizen. The balance and intensity of the phenol and ester components can vary but the best examples are reasonably balanced and fairly prominent.

\* **Ingredients:** By German law, at least 50% of the grist must be malted wheat, although some versions use up to 70%; the remainder is Pilsner malt. A traditional decoction mash gives the appropriate body without cloying sweetness. Weizen ale yeasts produce the typical spicy and fruity character, although extreme fermentation temperatures can affect the balance and produce off-flavors. A small amount of noble hops are used only for bitterness. \* **Technique:** *Double decoction mash traditional: protein/starch/ferulic acid rest > then starch conversion > mash out.*

**Commercial Examples:** Weihenstephaner Hefeweissbier, Schneider Weisse Weizenhell, Paulaner Hefe-Weizen, Hacker-Pschorr Weisse, Plank Bavarian Hefeweizen, Ayinger Bräu Weisse, Ettaler Weissbier Hell, Franziskaner Hefe-Weisse, Andechser Weissbier Hefetrüb, Kapuziner Weissbier, Erdinger Weissbier, Penn Weizen, Barrelhouse Hocking Hills HefeWeizen, Eisenbahn Weizenbier

## 15B. Dunkelweizen

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No - low	Med. - strong		Lt. copper - dk. brown	<i>Slightly hazy - opaque</i>	v. thick	Off - white	Long-lasting			
<b>Character:</b>		noble	Clove phenols, banana esters			Wheat & yeast haze	<i>moussy</i>					
<b>Optional:</b>	Bready, grain wheat. Us. caramel, bread crust, rich Vienna, Munich malt notes		Other fruity esters, spicy phenols. Low tartness, <i>low - med. vanilla notes, low bubblegum notes</i>									
<b>Unacceptable:</b>	Other malt character		Diacetyl, <i>DMS, high esters or phenols other than clover &amp; banana</i>									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	v. low - low	No - v. low	Low - med. high	<i>Tilted towards yeast</i>	Med. dry		Med. lt - med.	Med. - high			
<b>Character:</b>	Bready, grain wheat. Us. caramel, bread crust, rich melanoidins, Vienna, Munich malt notes		<i>Noble</i>	Clove phenols, banana esters	<i>Malt supports, hops just to balance sweetness</i>	<i>Light spritzy finish.</i>	Well-rounded, flavorful		Effervescent	Fluffy, creamy, light spritzy		
<b>Optional:</b>				Other fruity esters, spicy phenols. Low tartness, low - med. vanilla notes, low bubblegum notes				Increased body from yeast, malt				
<b>Unacceptable:</b>				Diacetyl, <i>DMS, high esters or phenols other than clover &amp; banana</i>				Heavy				
	<b>OG:</b> 1.044 - 1.056	<b>FG:</b> 1.010 - 1.014		<b>ABV:</b> 4.3 - 5.6%		<b>IBU:</b> 10 - 18		<b>SRM:</b> 14 - 23				

**Mouthfeel:** Medium-light to medium-full body. The texture of wheat as well as yeast in suspension imparts the sensation of a fluffy, creamy fullness that may progress to a lighter finish, aided by moderate to high carbonation. The presence of Munich and/or Vienna malts also provide an additional sense of richness and fullness. Effervescent.

**Overall Impression:** A moderately dark, spicy, fruity, malty, refreshing wheat-based ale. Reflecting the best yeast and wheat character of a hefeweizen blended with the malty richness of a Munich dunkel.

**History:** Old-fashioned Bavarian wheat beer was often dark. In the 1950s and 1960s, wheat beers did not have a youthful image, since most older people drank them for their health-giving qualities. Today, the lighter hefeweizen is more common.

**Comments:** The presence of Munich and/or Vienna-type barley malts gives this style a deep, rich barley malt character not found in a hefeweizen. Bottles with yeast are traditionally swirled or gently rolled prior to serving. The balance and intensity of the phenol and ester components can vary but the best examples are reasonably balanced and fairly prominent.

**Ingredients:** By German law, at least 50% of the grist must be malted wheat, although some versions use up to 70%; the remainder is usually Munich and/or Vienna malt. A traditional decoction mash gives the appropriate body without cloying sweetness. Weizen ale yeasts produce the typical spicy and fruity character, although extreme fermentation temperatures can affect the balance and produce off-flavors. A small amount of noble hops are used only for bitterness.

**Commercial Examples:** Weihenstephaner Hefeweissbier Dunkel, Ayinger Ur-Weisse, Franziskaner Dunkel Hefe-Weisse, Schneider Weisse (Original), Ettaler Weissbier Dunkel, Hacker-Pschorr Weisse Dark, Tucher Dunkles Hefe Weizen, Edelweiss Dunkel Weissbier, Erdinger Weissbier Dunkel, Kapuziner Weissbier Schwarz

## 15C. Weizenbock

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No	Med. - strong	Low - med	Dk. amber - dk. brown	Slightly hazy - opaque	v. thick	Lt. tan	Long-lasting			
<b>Character:</b>	Rich, bock like melanoidins, bready		Dark fruit esters, med. - high vanilla &/or clove phenols, low - med. banana esters.	Alcohol	Ruby highlights	Wheat & yeast haze	moussy					
<b>Optional:</b>			Other fruity esters, spicy phenols. Low tartness, low - med. vanilla notes, low bubblegum notes									
<b>Unacceptable:</b>	Other malt character		Diacetyl, DMS	Solventy								
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med.	Low	No	Low - med. high	Balanced between yeast & malt	Med. dry		Med. full - full	Med. - high			Low - high
<b>Character:</b>	Complex, rich bock-like melanoidins, Vienna, Munich malt notes, med. bready, grainy wheat notes			Dark fruit esters, med. - high vanilla &/or clove phenols, low banana esters	Slightly sweet, hops and alcohol balance	Light spritzy finish.	Well-rounded, flavorful		Effervescent	Fluffy, creamy, light spritzy		Alcohol warming
<b>Optional:</b>	Lt. chocolate			Other fruity esters, spicy phenols. Low tartness, low - med. vanilla notes, low bubblegum notes			Low sherry-like notes if aged	Increased body from yeast, malt				
<b>Unacceptable:</b>	Roasted			Diacetyl, DMS				Heavy				Hot, solventy
<b>OG:</b> 1.064 - 1.090		<b>FG:</b> 1.015 - 1.022		<b>ABV:</b> 6.5 - 8.0%		<b>IBU:</b> 15 - 30		<b>SRM:</b> 12 - 25				

**Overall Impression:** A strong, malty, fruity, wheat-based ale combining the best flavors of a dunkelweizen and the rich strength and body of a bock.

**History:** Aventinus, the world's oldest top-fermented wheat doppelbock, was created in 1907 at the Weisse Brauhaus in Munich using the 'Méthode Champenoise' with fresh yeast sediment on the bottom. It was Schneider's creative response to bottom-fermenting doppelbocks that developed a strong following during these times.

**Comments:** A dunkel-weizen beer brewed to bock or doppelbock strength. Now also made in the Eisbock style as a specialty beer. Bottles may be gently rolled or swirled prior to serving to rouse the yeast.

**Ingredients:** A high percentage of malted wheat is used (by German law must be at least 50%, although it may contain up to 70%), with the remainder being Munich- and/or Vienna-type barley malts. A traditional decoction mash gives the appropriate body without cloying sweetness. Weizen ale yeasts produce the typical spicy and fruity character. Too warm or too cold fermentation will cause the phenols and esters to be out of balance and may create off-flavors. A small amount of noble hops are used only for bitterness.

**Commercial Examples:** Schneider Aventinus, Schneider Aventinus Eisbock, Plank Bavarian Dunkler Weizenbock, Plank Bavarian Heller Weizenbock, AleSmith Weizenbock, Erdinger Pikantus, Mahr's Der Weisse Bock, Victory Moonglow Weizenbock, High Point Ramstein Winter Wheat, Capital Weizen Doppelbock, Eisenbahn Vigorosa

## 15D. Roggenbier (German Rye Beer)

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low - med.	No - low	Low - med.		Lt. copper - dk. brown	Cloudy	Large	Off-white - tan	Persistent			
<b>Character:</b>	Spicy rye	noble	Clove phenols, banana esters		Reddish, coppery, orange-sih	Wheat & yeast haze	Dense, thick & rocky					
<b>Optional:</b>	Acidic rye notes		Other fruity esters, spicy phenols. Low tartness, <i>low - med. vanilla notes, low bubblegum notes</i>									
<b>Unacceptable:</b>			Diacetyl, <i>DMS, high esters or phenols other than clover &amp; banana</i>									
Flavor						Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	<i>V. low - med. strong</i>	Med. low - med.	Low - med.	Low - med.	<i>Tilted towards yeast</i>	Med. dry		Med. - med. full	High			
<b>Character:</b>	Spicy rye		Noble	Clove phenols, banana esters	<i>Initial malt sweetness, rye &amp; yeast dominate</i>	<i>Light grainy finish,</i>	Well-rounded, flavorful					
<b>Optional:</b>	Hearty, like pumpernickel rye, low caramel			Low citrusy tartness		<i>Spicy, grainy aftertaste.</i>		Increased body from yeast.	Tartness			
<b>Unacceptable:</b>				Diacetyl				Heavy				
	<b>OG:</b> 1.046 - 1.056	<b>FG:</b> 1.010 - 1.014		<b>ABV:</b> 4.5 - 6%		<b>IBU:</b> 10 - 20			<b>SRM:</b> 14 - 19			

**Overall Impression:** A dunkelweizen made with rye rather than wheat, but with a greater body and light finishing hops.

**History:** A specialty beer originally brewed in Regensburg, Bavaria as a more distinctive variant of a dunkelweizen using malted rye instead of malted wheat. (*Developed in the 1970s as a novelty beer by Thurn & Taxis brewery, which was later absorbed by the Paulaner Group. It exists as a distinct style in the U.S., and the BJCP Guidelines because Michael Jackson mentioned it in several of his books.*)

**Comments:** American-style rye beers should be entered in the American Rye category (6D). Other traditional beer styles with enough rye added to give a noticeable rye character should be entered in the Specialty Beer category (23). Rye is a huskless grain and is difficult to mash, often resulting in a gummy mash texture that is prone to sticking. Rye has been characterized as having the most assertive flavor of all cereal grains. It is inappropriate to add caraway seeds to a roggenbier (as some American brewers do); the rye character is traditionally from the rye grain only.

**Ingredients:** Malted rye typically constitutes 50% or greater of the grist (some versions have 60-65% rye). Remainder of grist can include pale malt, Munich malt, wheat malt, crystal malt and/or small amounts of debittered dark malts for color adjustment. Weizen yeast provides distinctive banana esters and clove phenols. Light usage of noble hops in bitterness, flavor and aroma. Lower fermentation temperatures accentuate the clove character by suppressing ester formation. Decoction mash commonly used (as with weizenbiers).

**Commercial Examples (not imported to the U.S.):** Paulaner Roggen, Bürgerbräu Wolznacher Roggenbier.

## 16A. Witbier

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Med.	No - low	Low	Med.	Lt. straw - lt. gold	Cloudy		White	v. good			
<b>Character:</b>	Sweetness, low grainy, spicy wheat		Honey, vanilla, floral, sweet	Perfumy coriander, zesty, citrusy orange fruitiness	Yellowish - white	Milky from starch & yeast	Dense, moussy					
<b>Optional:</b>	Low tartness	Spicy, herbal		Low complex herbal, spicy peppery notes								
<b>Unacceptable:</b>		Overpowering	Diacetyl	Celery, vegetal, ham-like, excessive spices								
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low	Low - med. low	No - low	Low	Dominated by yeast & spices	Crisp, dry	Low	Med. lt. - med.	High			
<b>Character:</b>	wheat			Honey, vanilla, floral, sweet	Supported by malt, hops just enough to balance sweetness	Refreshing	Perfumy coriander, zesty, citrusy orange fruitiness	High CO2 & low tartness lightens body	Effervescent	Smoothness, Lt. creaminess		
<b>Optional:</b>			Spicy, herbal			tart	Low complex herbal, spicy peppery notes. V. low lactic sour					
<b>Unacceptable:</b>		Excessive	Overpowering	Diacetyl		Hop bitterness	Celery, vegetal, ham-like, soapy notes. Excessive spices. Orange pith bitter.	Thin or heavy		Thick or very dry		
	<b>OG:</b> 1.044 - 1.052		<b>FG:</b> 1.008 - 1.012		<b>ABV:</b> 4.5 - 5.5%		<b>IBU:</b> 10 - 20			<b>SRM:</b> 2 - 4		

**Overall Impression:** A refreshing, elegant, tasty, moderate-strength wheat-based ale.

**History:** A 400-year-old beer style that died out in the 1950s; it was later revived by Pierre Celis at Hoegaarden (*in 1963*), and has grown steadily in popularity over time (*esp. in the U.S. in the 1990s, when Celis opened a brewery in the U.S.*).

**Comments:** The presence, character and degree of spicing and lactic sourness varies. Overly spiced and/or sour beers are not good examples of the style. Coriander of certain origins might give an inappropriate ham or celery character. The beer tends to be fragile and does not age well, so younger, fresher, properly handled examples are most desirable. Most examples seem to be approximately 5% ABV. *Modern commercial examples tend to be sweeter than more traditional versions, lacking the tartness, dry finish and complexity of the originals.*

**Ingredients:** About 50% unmalted wheat (traditionally soft white winter wheat) and 50% pale barley malt (usually Pils malt) constitute the grist. In some versions, up to 5-10% raw oats may be used. Spices of freshly-ground coriander and Curaçao or sometimes sweet orange peel complement the sweet aroma and are quite characteristic. Other spices (e.g., chamomile, cumin, cinnamon, Grains of Paradise) may be used for complexity but are much less prominent. Ale yeast prone to the production of mild, spicy flavors is very characteristic. In some instances a very limited lactic fermentation, or the actual addition of lactic acid, is done.

**Commercial Examples:** Hoegaarden Wit, St. Bernardus Blanche, Celis White, Vuuve 5, Brugs Tarwebier (Blanche de Bruges), Wittekerke, Allagash White, Blanche de Bruxelles, Ommegang Witte, Avery White Rascal, Unibroue Blanche de Chambly, Sterkens White Ale, Bell's Winter White Ale, Victory Whirlwind Witbier, Hitachino Nest White Ale

## 16B. Belgian Pale Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	High	Low - med.	Med.		Amber - copper	V. good		White	<i>Good</i>			
<b>Character:</b>	Toasty, biscuity malt	Floral, spicy	Fruity: orange- or pear-like.				Creamy, rocky					
<b>Optional:</b>			Low peppery, spicy phenols									
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	High	Low - med.	No - low	Lt. - med.	<i>Balanced</i>	Med. sweet - med. dry		Med lt. - med.	Med.			Low
<b>Character:</b>	Soft, smooth, toasty, biscuity, nutty		Floral, spicy	V. low - low peppery, spicy phenols								
<b>Optional:</b>				Fruity: orange- or pear-like.		Hop bitter higher in drier versions						Alcohol warmth
<b>Unacceptable:</b>				Diacetyl	Any element dominant							Excessive hot, solventy
	<b>OG:</b> 1.048 - 1.054		<b>FG:</b> 1.010 - 1.014		<b>ABV:</b> 4.8 - 5.5%		<b>IBU:</b> 20 - 30			<b>SRM:</b> 8 - 14		

**Overall Impression:** A fruity, moderately malty, somewhat spicy, easy-drinking, copper-colored ale.

**History:** Produced by breweries with roots as far back as the mid-1700s, the most well-known examples were perfected after the Second World War with some influence from Britain, including hops and yeast strains.

**Comments:** Most commonly found in the Flemish provinces of Antwerp and Brabant. Considered “everyday” beers (Category I). Compared to their higher alcohol Category S cousins, they are Belgian “session beers” for ease of drinking. Nothing should be too pronounced or dominant; balance is the key. Not as fruity/citrusy as many other Belgian ales. Head often fades more quickly than other Belgian beers.

**Ingredients:** Pilsner or pale ale malt contributes the bulk of the grist with (cara) Vienna and Munich malts adding color, body and complexity. Sugar is not commonly used as high gravity is not desired. Noble hops, Styrian Goldings, East Kent Goldings or Fuggles are commonly used. Yeasts prone to moderate production of phenols are often used but fermentation temperatures should be kept moderate to limit this character.

**Commercial Examples:** De Koninck, Speciale Palm, Dobbie Palm, Russian River Perdicion, Ginder Ale, Op-Ale, St. Pieters Zinnebir, Brewer’s Art House Pale Ale, Avery Karma, Eisenbahn Pale Ale, Ommegang Rare Vos (unusual in its 6.5% ABV strength)

## 16C. Saison

	Aroma					Appearance						
	Malt		Hops	Yeast	Other	Color	Clarity	Head				
								Size	Color	Persistence		
<b>Intensity:</b>	Light		Low - med. high	High	No - med.	Pale orange	Good - poor	Dense	White - ivory	Long-lasting		
<b>Character:</b>			Spicy, floral	Fruitiness: citrus - oranges, lemons.	Med. spice, low peppery phenols		Effervescent	Rocky,				
<b>Optional:</b>			Dry hops		Low - med. sourness. Low soft, spicy alcohol	Golden - amber	Unfiltered	Belgian lace on glass				
<b>Unacceptable:</b>				Diacetyl	Excessive herb, spice, alcohol, sour, hot, solventy							
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - med. low	Med. - high	Low - med.			V. dry		Lt. - med.	V. high			Med. - med. high
<b>Character:</b>	Soft	Perceived bitterness higher than IBU suggests	Us. spicy, earthy	Fruity citrus - oranges, lemons, low peppery phenols	Malt supports yeast, hops. Spices inc. bitter.	Long, bitter, sometimes spicy. High attenuation	Low - med. alcohol, tart sourness. Low		Effervescent	prickly		Alcohol, low - med. warming.
<b>Optional:</b>		Higher in stronger types	Higher in strong types		Stronger versions drier	Spices & alcohol higher in strong types						
<b>Unacceptable:</b>	Undetectable	Overwhelming		Diacetyl	Dominant spices		Overwhelming, hot, solventy				Puckering.	Hot, solventy
	<b>OG:</b> 1.048 - 1.065		<b>FG:</b> 1.002 - 1.012		<b>ABV:</b> 5 - 7%		<b>IBU:</b> 20 - 35			<b>SRM:</b> 5 - 14		

**Overall Impression:** A refreshing, medium to strong fruity/spicy ale with a distinctive yellow-orange color, highly carbonated, well hopped, & dry with a quenching acidity.

**History:** A seasonal summer style produced in Wallonia, the French-speaking part of Belgium. Originally brewed at the end of the cool season to last through the warmer months before refrigeration was common. It had to be sturdy enough to last for months but not too strong to be quenching & refreshing in the summer. It is now brewed year-round in tiny, artisanal breweries whose buildings reflect their origins as farmhouses. phenols tend to be lower than in many other Belgian beers, & complement the bitterness.

**Comments:** Varying strength examples exist (table beers of about 5% strength, typical export beers of about 6.5%, & stronger versions of 8%+). Strong versions (6.5%-9.5%) & darker versions (copper to dark brown/black) should be entered as Belgian Specialty Ales (16E). Sweetness decreases & spice, hop & sour character increases with strength. Herb & spice additions often reflect the indigenous varieties available at the brewery. High carbonation & extreme attenuation (85-95%) bring out many flavors & increases perception of dry finish. All have higher levels of acidity than other Belgian styles; the optional sour flavor is often a variable house character. There is no correlation between strength & color. Spices, hop bitterness & flavor, & sourness commonly increase with the strength of the beer while sweetness decreases.

**Ingredients:** Pilsner malt dominates grist, but Vienna &/or Munich malt give color & complexity. Sometimes contains other grains such as wheat & spelt. Adjuncts such as sugar & honey can add complexity & thin body. Hop bitterness & flavor may be more noticeable than in other Belgian styles. Sometimes dry-hopped. Noble hops, Styrian or East Kent Goldings are commonly used. A wide variety of herbs & spices are often used to add complexity & uniqueness in the stronger versions, but should always meld well with the yeast & hop character. Varying degrees of acidity &/or sourness can be created by the use of gypsum, acidulated malt, a sour mash or Lactobacillus. Hard water, common to most of Wallonia, can accentuate the bitterness & dry finish.

**Commercial Examples:** Saison Dupont Vieille Provision; Fantôme Saison D'Erezée - Printemps; Saison de Pipaix; Saison Regal; Saison Voisin; Lefebvre Saison 1900; Ellezelloise Saison 2000; Saison Silly; Southampton Saison; New Belgium Saison; Pizza Port SPF 45; Lost Abbey Red Barn Ale; Ommegang Hennepin



## 16D. Bière de Garde

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	High	No - low	Low - med.		Golden - brown	Clear - v. hazy	Well-formed	White - off-white				
<b>Character:</b>	Malt sweetness	Spicy, floral or herbal	esters	Musty, woody, cellar-like	Color depends on type		Supported by CO2	Depends on beer color				
<b>Optional:</b>	Low - med. toasty, low caramelization. Paler versions lack darker notes	Can be higher in paler versions				Unfiltered & hazy						
<b>Unacceptable:</b>			Diacetyl									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - high	Low - med	No - low	Low - Med.	Tilted to malt	Med. dry - dry.	Low - Med.	Med. lt - med.	Med. - high			Med.
<b>Character:</b>			Herbal, floral or spicy	Esters, smooth, well-lagered	Supported by hops	Malt lasts to finish. Alcohol adds some dryness	Alcohol			Smooth, silky		Smooth alcohol warming
<b>Optional:</b>	Toasty, toffee-like or caramel sweetness. Flavors & complexity increase as beer darkens		Slightly higher in pale versions	low spicy phenols							dry "corked"	
<b>Unacceptable:</b>				Diacetyl		cloying						hot
	<b>OG:</b> 1.060 - 1.080		<b>FG:</b> 1.008 - 1.016		<b>ABV:</b> 6 - 8.5%		<b>IBU:</b> 18 - 28		<b>SRM:</b> 6 - 19			

**Overall Impression:** A fairly strong, malt-accentuated, lagered artisanal farmhouse beer.

**History:** Name literally means "beer which has been kept or lagered." A traditional artisanal farmhouse ale from Northern France brewed in early spring and kept in cold cellars for consumption in warmer weather. It is now brewed year-round. Related to the Belgian Saison style, the main difference is that the Bière de Garde is rounder, richer, sweeter, malt-focused, often has a "cellar" character, and lacks the spicing and tartness of a Saison.

**Comments:** Three main variations are included in the style: the brown (brune), the blond (blonde), and the amber (ambrée). The darker versions will have more malt character, while the paler versions can have more hops (but still are malt-focused beers). A related style is Bière de Mars, which is brewed in March (Mars) for present use and will not age as well. Attenuation rates are in the 80-85% range. Some fuller-bodied examples exist, but these are somewhat rare.

**Ingredients:** The "cellar" character in commercial examples is unlikely to be duplicated in homebrews as it comes from indigenous yeasts and molds. Commercial versions often have a "corked", dry, astringent character that is often incorrectly identified as "cellar-like." Homebrews therefore are usually cleaner. Base malts vary by beer color, but usually include pale, Vienna and Munich types. Kettle caramelization tends to be used more than crystal malts, when present. Darker versions will have richer malt complexity and sweetness from crystal-type malts. Sugar may be used to add flavor and aid in the dry finish. Lager or ale yeast fermented at cool ale temperatures, followed by long cold conditioning (4-6 weeks for commercial operations). Soft water. Floral, herbal or spicy continental hops.

**Commercial Examples:** Jenlain (amber), Jenlain Bière de Printemps (blond), St. Amand (brown), Ch'Ti Brun (brown), Ch'Ti Blond (blond), La Choulette (all 3 versions), La Choulette Bière des Sans Culottes (blond), Saint Sylvestre 3 Monts (blond), Biere Nouvelle (brown), Castelain (blond), Jade (amber), Brasseurs Bière de Garde (amber), Southampton Bière de Garde (amber), Lost Abbey Avante Garde (blond)

## 17A. Berliner Weisse

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		None	No - med.	Sharply	V. pale straw	Clear - semi-hazy	Large	white	Poor			
<b>Character:</b>			fruity	Sour, somewhat acidic		effervescent	dense					
<b>Optional:</b>			Increases with age, floral notes. Low Brett aroma.									
<b>Unacceptable:</b>		Detectable	Diacetyl, DMS									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low	V. low	None	Low		V. dry	Med. - med. high	Light	V. high			
<b>Character:</b>	Bready, grainy wheat						Clean, lactic sour					
<b>Optional:</b>				Fruitiness			Low Brett notes					
<b>Unacceptable:</b>			Detectable	Diacetyl, DMS								Alcohol
	<b>OG:</b> 1.028 - 1.032		<b>FG:</b> 1.003 - 1.006		<b>ABV:</b> 2.8 - 3.8%		<b>IBU:</b> 3 - 8			<b>SRM:</b> 2 - 3		

**Overall Impression:** A very pale, sour, refreshing, low-alcohol wheat ale.

**History:** A regional specialty of Berlin; referred to by Napoleon's troops in 1809 as “the Champagne of the North” due to its lively and elegant character. Only two traditional breweries still produce the product.

**Comments:** In Germany, it is classified as a *Schankbier* denoting a small beer of starting gravity in the range 7-8°P. Often served with the addition of a shot of sugar syrups (‘mit schuss’) flavored with raspberry (‘himbeer’) or woodruff (‘waldmeister’) or even mixed with Pils to counter the substantial sourness. Has been described by some as the most purely refreshing beer in the world.

**Ingredients:** Wheat malt content is typically 50% of the grist (as with all German wheat beers) with the remainder being Pilsner malt. A symbiotic fermentation with top-fermenting yeast and *Lactobacillus delbruckii* provides the sharp sourness, which may be enhanced by blending of beers of different ages during fermentation and by extended cool aging. Hop bitterness is extremely low. A single decoction mash with mash hopping is traditional.

**Commercial Examples:** Schultheiss Berliner Weisse, Berliner Kindl Weisse, Nodding Head Berliner Weisse, Weihenstephan 1809 (unusual in its 5% ABV), Bahnhof Berliner Style Weisse, Southampton Berliner Weisse, Bethlehem Berliner Weisse, Three Floyds Deesko

## 17B. Flanders Red Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		No	High	<i>Low - high</i>	Dk. red - red-brown	Good		White - off-white	Average - good			
<b>Character:</b>	Sweet		Complex fruitiness (black cherry, orange, plum, red currants)	Sour, acidic								
<b>Optional:</b>	Low chocolate		Low vanilla, low spicy phenols, v. low diacetyl									
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Low - high	Low	None	High	<i>Sweet vs. sour</i>	Dry	<i>Low - high</i>	Med.	Low - med.		Low - med.	
<b>Character:</b>				Complex fruitiness (black cherry, orange, plum, red currants)	<i>Higher sweet = less sour, &amp; vice-versa.</i>	Long, wine-like.	Sour, acidic. Prickly acidity	<i>Deceivingly light &amp; crisp</i>			Like aged red wine	Prickly acidity
<b>Optional:</b>				Low vanilla, low spicy phenols, v. low diacetyl		Crisp & light, somewhat sweet	Low - med. acidic, tannic bitterness, red wine notes					
<b>Unacceptable:</b>												
	<b>OG:</b> 1.048 - 1.057		<b>FG:</b> 1.002 - 1.012		<b>ABV:</b> 4.6 - 6.5%		<b>IBU:</b> 10 - 25			<b>SRM:</b> 10 - 16		

**Overall Impression:** A complex, sour, red wine-like Belgian-style ale.

**History:** The indigenous beer of West Flanders, typified by the products of the Rodenbach brewery, established in 1820 in West Flanders but reflective of earlier brewing traditions. The beer is aged for up to two years, often in huge oaken barrels which contain the resident bacteria necessary to sour the beer. It was once common in Belgium and England to blend old beer with young to balance the sourness and acidity found in aged beer. While blending of batches for consistency is now common among larger breweries, this type of blending is a fading art.

**Comments:** Long aging and blending of young and well-aged beer often occurs, adding to the smoothness and complexity, though the aged product is sometimes released as a connoisseur's beer. Known as the Burgundy of Belgium, it is more wine-like than any other beer style. The reddish color is a product of the malt although an extended, less-than-rolling portion of the boil may help add an attractive Burgundy hue. Aging will also darken the beer. The Flanders red is more acetic and the fruity flavors more reminiscent of a red wine than an Oud Bruin. Can have an apparent attenuation of up to 98%.

**Ingredients:** A base of Vienna and/or Munich malts, light to medium cara-malts, and a small amount of Special B are used with up to 20% maize. Low alpha acid continental hops are commonly used (avoid high alpha or distinctive American hops). Saccharomyces, Lactobacillus and Brettanomyces (and acetobacter) contribute to the fermentation and eventual flavor.

**Commercial Examples:** Rodenbach Klassiek, Rodenbach Grand Cru, Bellegems Bruin, Duchesse de Bourgogne, New Belgium La Folie, Petrus Oud Bruin, Southampton Flanders Red Ale, Verhaege Vichtenaar, Monk's Cafe Flanders Red Ale, New Glarus Enigma, Panil Barriquee, Mestreechs Aajt

## 17C. Flanders Brown Ale/Oud Bruin

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	rich	None			Dk. reddish brown - brown	Good		Off-white - lt. tan	Av. - good			
<b>Character:</b>	complex malt: caramel, toffee, orange, treacle or chocolate		Complex fruity esters: raisins, plums, figs, dates, black cherries or prunes									
<b>Optional:</b>			Low spicy phenols. V. low diacetyl	Sherry-like in aged versions. Low sour aroma								
<b>Unacceptable:</b>				Noticeable acetic/vinegar								
Flavor						Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Low - med. low	None		Balanced			Med. - med. full	Low - med.		None	
<b>Character:</b>	Malty, fruity, low caramel, toffee, orange, treacle or chocolate	restrained		Fruity complexity, raisins, plums, figs, dates, black cherries or prunes	“sweet & sour”	Sweet & tart						
<b>Optional:</b>				Low spicy phenols. V. low diacetyl		Sherry-like in aged versions. Low sour aroma. Low oxidation for complexity						
<b>Unacceptable:</b>						Noticeable acetic/vinegar					Detectable	
<b>OG:</b> 1.040 - 1.074		<b>FG:</b> 1.008 - 1.012		<b>ABV:</b> 4 - 8%		<b>IBU:</b> 20 - 25			<b>SRM:</b> 15 - 22			

**Overall Impression:** A malty, fruity, aged, somewhat sour Belgian-style brown ale.

**History:** An “old ale” tradition, indigenous to East Flanders, typified by the products of the Liefman brewery (now owned by Riva), which has roots back to the 1600s. Historically brewed as a “provision beer” that would develop some sourness as it aged. These beers were typically more sour than current commercial examples. While Flanders red beers are aged in oak, the brown beers are warm aged in stainless steel.

**Comments:** Long aging and blending of young and aged beer may occur, adding smoothness and complexity and balancing any harsh, sour character. A deeper malt character distinguishes these beers from Flanders red ales. This style was designed to lay down so examples with a moderate aged character are considered superior to younger examples. As in fruit lambics, Oud Bruin can be used as a base for fruit-flavored beers such as kriek (cherries) or frambozen (raspberries), though these should be entered in the classic-style fruit beer category. The Oud Bruin is less acetic and maltier than a Flanders Red, and the fruity flavors are more malt-oriented.

**Ingredients:** A base of Pils malt with judicious amounts of dark cara malts and a tiny bit of black or roast malt. Often includes maize. Low alpha acid continental hops are typical (avoid high alpha or distinctive American hops). Saccharomyces and Lactobacillus (and acetobacter) contribute to the fermentation and eventual flavor. Lactobacillus reacts poorly to elevated levels of alcohol. A sour mash or acidulated malt may also be used to develop the sour character without introducing Lactobacillus. Water high in carbonates is typical of its home region and will buffer the acidity of darker malts and the lactic sourness. Magnesium in the water accentuates the sourness.

**Commercial Examples:** Liefman’s Goudenband, Liefman’s Oud Bruin (no longer produced), Liefman’s Oud Bruin, Ichtegem Old Brown, Riva Vondel

## 17D. Straight (Unblended) Lambic

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		None		<i>Med. high - high</i>	Pale yellow - dk. gold	Good - hazy		White	Poor			
<b>Character:</b>			fruity - apples or even honey	Sour, acidic stronger in young examples. <i>V. low - med.</i> barnyard, earthy, goaty, hay, horsey, & horse blanket. Low oak &/or citrus	Darkens w/ age	Cloudy when young, older clear						
<b>Optional:</b>												
<b>Unacceptable:</b>		<i>Detectable</i>	Diacetyl	enteric, smoky, cigar-like, or cheesy								
Flavor					Mouthfeel							
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		No - low	None			<i>Slight sweet - v. dry</i>	<i>Med. - high</i>	Lt. - med. lt.	None - v. low		Med. - high	
<b>Character:</b>	wheat			Fruity. Simpler in young types. Older = more complex - lt. fruit, rhubarb, honey	<i>Younger = sourer, older more complex &amp; balanced</i>	Dries w/ age	Sour, acidic, stronger in young examples. <i>V. low - med.</i> barnyard, earthy, goaty, hay, horsey, & horse blanket. Stronger in older examples Low oak &/or citrus (grapefruit)				puckering	
<b>Optional:</b>												
<b>Unacceptable:</b>				Diacetyl			enteric, smoky, cigar-like, or cheesy. Noticeably cidery or vinegary	<i>Watery</i>	<i>Excessive</i>		<i>Sharp astringency</i>	
<b>Vol. CO<sub>2</sub>:</b> 1.0 - 1.5	<b>OG:</b> 1.040 - 1.054		<b>FG:</b> 1.001 - 1.010		<b>ABV:</b> 5 - 6.5%		<b>IBU:</b> 0 - 10			<b>SRM:</b> 3 - 7		

**Overall Impression:** Complex, sour/acidic, pale, wheat-based ale fermented by a variety of Belgian microbiota.

**History:** Spontaneously fermented sour ales from the area in and around Brussels (the Senne Valley) stem from a farmhouse brewing tradition several centuries old (*probably dating back to at least the 16<sup>th</sup> century*). Their numbers are constantly dwindling (*as Brussels expands and consumer tastes shift*).

**Comments:** Straight lambics are single-batch, unblended beers. Unblended, straight lambic often a true product of the “house character” of a brewery; will be more variable than a gueuze. Generally served young (6 months) on tap as cheap, easy-drinking beers without filling carbonation. Younger versions tend to be one-dimensionally sour since complex Brett character takes a year or more develop. An enteric character is often indicative of a too-young lambic. Wild yeast and bacteria will ferment ALL sugars, so bottle only when they have completely fermented. IBUs are approximate since aged hops are used; used for anti-bacterial properties more than bittering.

**Ingredients:** Unmalted wheat (30-40%), Pilsner malt and aged (surannes = *superannuated, not an actual hop variety*) hops (3 years) are used. The aged hops are used more for preservative effects than bitterness, and makes actual bitterness levels difficult to estimate. Traditionally, these beers are spontaneously fermented with naturally-occurring yeast and bacteria in predominately oaken barrels (*often cast-off white wine barrels from the Champagne region*). Home-brewed and craft-brewed versions are more typically made with pure cultures of yeast commonly including *Saccharomyces*, *Brettanomyces*, *Pediococcus* and *Lactobacillus* in an attempt to recreate the effects of the dominant microbiota of Brussels and the surrounding countryside of the Senne River valley. Cultures taken from bottles are sometimes used but there is no simple way of knowing what organisms are still viable.

**Commercial Examples:** Cantillon Grand Cru Bruocsella. De Cam sometimes bottles their very old (5 years) lambic. In and around Brussels there are specialty cafes that often have draught lambics from traditional brewers or blenders such as Boon, De Cam, Cantillon, Drie Fonteinen, Lindemans, Timmermans and Girardin.

## 17E. Gueuze

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		None		<i>Med. - med. high</i>	Golden	<i>Brilliant</i>	Thick	White	Long-lasting			
<b>Character:</b>			Fruity - citrus (grapefruit), apples or other lt. fruits, rhubarb, honey	Sour, acidic stronger in young examples. <i>V. low - med.</i> barnyard, earthy, goaty, hay, horsey, & horse blanket.		Effervescent	Rocky, moussy					
<b>Optional:</b>				<i>V. low oak</i>		Less brilliant if bottle shaken						
<b>Unacceptable:</b>			Diacetyl	Unbalanced sour, enteric, smoky, cigar-like.								
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Overall	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		No - low	None		<i>Balanced</i>	<i>Slight sweet - v. dry</i>	<i>Med. - high</i>	Lt. - med. Lt.	High		Low - high	Low
<b>Character:</b>	Malt, wheat			Varied fruity, honey-like	<i>Sour balanced by malt, wheat, barnyard notes</i>	Dries w/ age	<i>V. low - med.</i> barnyard, earthy, goaty, hay, horsey, & horse blanket. Low oak &/or citrus (grapefruit)			Mouth-filling	Tart, puckering	
<b>Optional:</b>		Low hop bitter					Low oak &/ or vanilla. Low sweetness					warming
<b>Unacceptable:</b>				Diacetyl	Unbalanced		Unbalanced sour, enteric, smoky, cigar-like. Excess sweet			Watery	Sharp astringency	
		<b>OG:</b> 1.040 - 1.060	<b>FG:</b> 1.000 - 1.006	<b>ABV:</b> 5 - 8%			<b>IBU:</b> 0 - 10			<b>SRM:</b> 3 - 7		

**Overall Impression:** Complex, pleasantly sour/acidic, balanced, pale, wheat-based ale fermented by a variety of Belgian microbiota.

**History:** As for Straight Lambic.

**Comments:** Gueuze is traditionally produced by mixing one, two, and three-year old lambic. “Young” lambic contains fermentable sugars while old lambic has the characteristic “wild” taste of the Senne River valley. A good gueuze is not the most pungent, but possesses a full and tantalizing bouquet, a sharp aroma, and a soft, velvety flavor. Gueuze is served effervescent. IBUs are approximate since aged hops are used; Belgians use hops for anti-bacterial properties more than bittering in lambics. Products marked “oude” or “ville” are considered most traditional.

**Ingredients:** Unmalted wheat (30-40%), Pilsner malt and aged (surannes) hops (3 years) are used. The aged hops are used more for preservative effects than bitterness, and makes actual bitterness levels difficult to estimate. Traditionally these beers are spontaneously fermented with naturally-occurring yeast and bacteria in predominately oaken barrels. Home-brewed and craft-brewed versions are more typically made with pure cultures of yeast commonly including *Saccharomyces*, *Brettanomyces*, *Pediococcus* and *Lactobacillus* in an attempt to recreate the effects of the dominant microbiota of Brussels and the surrounding countryside of the Senne River valley. Cultures taken from bottles are sometimes used but there is no simple way of knowing what organisms are still viable.

**Commercial Examples:** Boon Oude Gueuze, Boon Oude Gueuze Mariage Parfait, De Cam Gueuze, De Cam/Drei Fonteinen Millennium Gueuze, Drie Fonteinen Oud Gueuze, Cantillon Gueuze, Hanssens Oude Gueuze, Lindemans Gueuze Cuvée René, Girardin Gueuze (Black Label), Mort Subite (Unfiltered) Gueuze, Oud Beersel Oude Gueuze

## 17F. Fruit Lambic

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>		None				Good	Thick		Long-lasting			
<b>Character:</b>			Fruity	Fruit dominant, blends w. Low - med. acidic sour, barnyard, earthy, goaty, hay, horsy, horseblanket.	Based on fruit,	Effervescent	Rocky, moussy					
<b>Optional:</b>					may fade w. age	Fruit haze		Tinted by fruit				
<b>Unacceptable:</b>		Detectable	Diacetyl	Enteric, smoky, cigar-like, or cheesy								
	Flavor					Mouthfeel						
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		None	None					Lt. - Med. Lt.	High		Low - high	Low
<b>Character:</b>							Fruit, low -med. sour. Low - high barnyard notes Fruity when young, lower w/ age.			Mouth-filling	Tart, puckering	
<b>Optional:</b>	Low sweetness	<i>Detectable</i>					High acidity. Low vanilla &/or oak					warming
<b>Unacceptable:</b>	Med - high sweetness		Detectable	Diacetyl			Lack of fruit notes, enteric, smoky or cigar-like			Watery	Sharp astringency	
	<b>OG:</b> 1.040 - 1.060		<b>FG:</b> 1.000 - 1.010		<b>ABV:</b> 5 - 7%		<b>IBU:</b> 0 - 10			<b>SRM:</b> 3 - 7		

**Overall Impression:** Complex, fruity, pleasantly sour/acidic, balanced, pale, wheat-based ale fermented by a variety of Belgian microbiota. A lambic with fruit, not just a fruit beer.

**History:** As for Straight Lambic. Fruit was traditionally added to lambic or gueuze, either by the blender or publican, to increase the variety of beers available in local cafes.

**Comments:** Fruit-based lambics are often produced like gueuze (see Gueuze). Whole fruit is commonly added halfway through aging and is allowed to age in the barrel; yeast and bacteria ferment all sugars from the fruit. Fruit may also be added to unblended lambic. The most traditional styles of fruit lambics include kriek (*Scarbeek sour cherries - not grown in the U.S.*), framboise (raspberries) and druivenlambik (muscat grapes). *More recent versions are made using black currants, apples, apricots, muscat grapes, and other fruits and are often intended for the export market.* Overly sweet lambics (e.g., Lindemans or Belle Vue clones) fall into Belgian Specialty category. Otherwise as for straight lambic.

**Ingredients:** Unmalted wheat (30-40%), Pilsner malt and aged (surannes) hops (3 years) are used. The aged hops are used more for preservative effects than bitterness, and makes actual bitterness levels difficult to estimate. Traditional products use 10-30% fruit (25%, if cherry). Fruits traditionally used include tart cherries (with pits), raspberries or Muscat grapes. More recent examples include peaches, apricots or merlot grapes. Tart or acidic fruit is traditionally used as its purpose is not to sweeten the beer but to add a new dimension. Traditionally these beers are spontaneously fermented with naturally-occurring yeast and bacteria in predominately oaken barrels. Home-brewed and craft-brewed versions are more typically made with pure cultures of yeast commonly including Saccharomyces, Brettanomyces, Pediococcus and Lactobacillus in an attempt to recreate the effects of the dominant microbiota of Brussels and the surrounding countryside of the Senne River valley. Cultures taken from bottles are sometimes used but there is no simple way of knowing what organisms are still viable.

**Commercial Examples:** Boon Framboise Mariage Parfait, Boon Kriek Mariage Parfait, Boon Oude Kriek, Cantillon Fou' Foune (apricot), Cantillon Kriek, Cantillon Lou Pepe Kriek, Cantillon Lou Pepe Framboise, Cantillon Rose de Gambrinus, Cantillon St. Lamvinus (merlot grape), Cantillon Vigneronne (Muscat grape), De Cam Oude Kriek, Drie Fonteinen Kriek, Girardin Kriek, Hanssens Oude Kriek, Oud Beersel Kriek, Mort Subite Kriek.

## 18A. Belgian Blond Ale

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head		Persistence			
							Size	Color				
<b>Intensity:</b>	Low	Low	<i>V. low - low</i>		Lt. gold - dk. gold	v. clear	Large	White - off-white	Good			
<b>Character:</b>	Sweet, pils malt	Earthy or spicy	Complex spicy phenolics, perfumy, honey-like fusels, or fruity (orange or lemon) esters				Dense, creamy	Belgian lace on glass				
<b>Optional:</b>	Low sugary sweet											
<b>Unacceptable:</b>												
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Med.	Low	<i>Low</i>		Med. dry - dry	<i>Med.</i>	Med.	Med. high - high	Somewhat		<i>Lt. - med.</i>
<b>Character:</b>	Smooth, Pils malt sweet. Low caramelized or honey-like sweet		Spicy, earthy	Complex perfumy, honey-like fusels, Fruity (orange or lemon) esters	Sweet initially finishes med. dry to dry	Smooth alcohol in aftertaste	Smooth alcohol			Creamy		<i>Smooth alcohol warmth in aftertaste</i>
<b>Optional:</b>				Light spicy phenols.					Mouthfilling, bubbly			
<b>Unacceptable:</b>												
	<b>OG:</b> 1.062 - 1.075		<b>FG:</b> 1.008 - 1.018		<b>ABV:</b> 6 - 7.5%		<b>IBU:</b> 15 - 30			<b>SRM:</b> 4 - 7		

**Overall Impression:** A moderate-strength golden ale that has a subtle Belgian complexity, slightly sweet flavor, and dry finish.

**History:** Relatively recent development (*i.e., since the 1970s*) to further appeal to European Pils drinkers, becoming more popular as it is widely marketed and distributed.

**Comments:** Similar strength as a dubbel, similar character as a Belgian Strong Golden Ale or Tripel, although a bit sweeter and not as bitter. Often has an almost lager-like character, which gives it a cleaner profile in comparison to the other styles. Belgians use the term “Blond,” while the French spell it “Blonde.” Most commercial examples are in the 6.5 - 7% ABV range. Many Trappist table beers (singles or Enkels) are called “Blond” but these are not representative of this style.

**Ingredients:** Belgian Pils malt, aromatic malts, sugar, Belgian yeast strains that produce complex alcohol, phenolics and perfumy esters, noble, Styrian Goldings or East Kent Goldings hops. No spices are traditionally used, although the ingredients and fermentation by-products may give an impression of spicing (often reminiscent of oranges or lemons).

**Commercial Examples:** Leffe Blond, Affligem Blond, La Trappe (Koningshoeven) Blond, Grimbergen Blond, Val-Dieu Blond, Straffe Hendrik Blonde, Brugse Zot, Pater Lieven Blond Abbey Ale, Troubadour Blond Ale



## 18B. Belgian Dubbel

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	High	No - low	Med.		Dk. amber - copper	Clear	Large	Off-white	Long-lasting			
<b>Character:</b>	Complex, rich		Fruity esters (us. plum, raisins, dried cherry, maybe banana, apple).		Reddish depth of color		Dense, creamy					
<b>Optional:</b>	Low chocolate, caramel &/or toast	Low noble	V. low - med. spicy (clove, spice, peppery) phenols. Low higher alcohols (rose-like, perfumy)	Low alcohol notes								
<b>Unacceptable:</b>	Roasted, burnt		Diacetyl	Hot, solventy								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med - med. full	Med. low	No - low	Med.	Malty	Med. dry	Low alcohol notes	Med. - full	Med. high			Low
<b>Character:</b>	Complex, rich, malty sweetness			Fruity esters (us. plum, raisins, dried cherry, maybe banana, apple).	Complex malt, ester, alcohol & phenol interplay)		Hot, solventy		Can influence perception of body			Smooth alcohol warming
<b>Optional:</b>	Low chocolate, caramel &/or toast		Low noble	V. low - med. spicy (clove, spice, peppery) phenols. Low higher alcohols (rose-like, perfumy)								
<b>Unacceptable:</b>	Roasted, burnt, crystal malt sweetness, excessive maltiness	Persistent		Diacetyl		Lingering hop bitter	Detectable spices					Hot, solventy
	<b>OG:</b> 1.062 - 1.075	<b>FG:</b> 1.008 - 1.018		<b>ABV:</b> 6 - 7.6%		<b>IBU:</b> 15 - 25			<b>SRM:</b> 10 - 17			

**Overall Impression:** A deep reddish, moderately strong, malty, complex Belgian ale.

**History:** Originated at monasteries in the Middle Ages, and was revived in the mid-1800s after the Napoleonic era. (In its modern form, dubbel dates to 1948, using a unique yeast strain developed by Father Theodore of the Abbaye Notre Dame de Scourmont (Chimay) in close conjunction with Professor Jean de Clerck of Louvain Catholic University.)

**Comments:** Most commercial examples are in the 6.5 - 7% ABV range. Traditionally bottle-conditioned ("refermented in the bottle").

**Ingredients:** Belgian yeast strains prone to production of higher alcohols, esters, and phenolics are commonly used. Water can be soft to hard. Impression of complex grain bill, although traditional versions are typically Belgian Pils malt with caramelized sugar syrup or other unrefined sugars providing much of the character. Homebrewers may use Belgian Pils or pale base malt, Munich-type malts for maltiness, Special B for raisin flavors, CaraVienne or CaraMunich for dried fruit flavors, other specialty grains for character. Dark caramelized sugar syrup or sugars for color and rum-raisin flavors. Noble-type, English-type or Styrian Goldings hops commonly used. No spices are traditionally used, although restrained use is allowable.

**Commercial Examples:** Westmalle Dubbel, St. Bernardus Pater 6, La Trappe Dubbel, Corsendonk Abbey Brown Ale, Grimbergen Double, Affligem Dubbel, Chimay Premiere (Red), Pater Lieven Bruin, Duinen Dubbel, St. Feuillien Brune, New Belgium Abbey Belgian Style Ale, Stoudts Abbey Double Ale, Russian River Benediction, Flying Fish Dubbel, Lost Abbey Lost and Found Abbey Ale, Allagash Double

**\* 18C. Belgian Tripel**

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head		Persistence			
							Size	Color				
<b>Intensity:</b>	Light	No - low		Low	Dk. yellow - dk. gold	Good		White	Long-lasting			
<b>Character:</b>		Distinctive spicy, floral, perfumy	Complex med. - high spicy (peppery, clove-like) phenols, med. fruity esters (oranges, bananas).	Soft, spicy, smooth alcohol		Effervescent	Creamy, rocky	Belgian lace				
<b>Optional:</b>												
<b>Unacceptable:</b>				Hot, solventy								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Soft	Med. - high	Low - med.			Dry - v. dry	Low	Med. light - med. body	High			No - low
<b>Character:</b>	Rounded malt	Phenols might increase bitter	Spicy	Low - med. phenols (peppery), Esters (citrusy orange, lemon)	Spicy, fruity, alcohol notes, supported by soft malt	Due to CO2 & bitter, med. bitter aftertaste.	Soft, spicy, slightly sweet alcohol	Thinner than OG would suggest	Effervescent, reduces perception of body	Pleasant creaminess		Smooth alcohol warmth
<b>Optional:</b>			No hops								Detectable	
<b>Unacceptable:</b>	Sweet			Diacetyl			Strong alcohol taste, detectable spice adds			Cloying		Hot, solventy
	<b>OG:</b> 1.075 - 1.085		<b>FG:</b> 1.008 - 1.014		<b>ABV:</b> 7.5 - 9.5%		<b>IBU:</b> 20 - 40			<b>SRM:</b> 4.5 - 7		

**Overall Impression:** Strongly resembles a Strong Golden Ale but slightly darker and somewhat fuller-bodied. Usually has a more rounded malt flavor but should not be sweet.

**History:** Originally popularized by the Trappist monastery at Westmalle. (First produced in 1934, its modern form dates to 1956.)

**Comments:** High in alcohol but does not taste strongly of alcohol. The best examples are sneaky, not obvious. High carbonation and attenuation helps to bring out the many flavors and to increase the perception of a dry finish. Most Trappist versions have at least 30 IBUs and are very dry. Traditionally bottle-conditioned ("refermented in the bottle"). *There is a wider variation in interpretations of this style, and house character, than for Belgian Strong Golden Ale.*

\* **Ingredients:** The light color and relatively light body for a beer of this strength are the result of using Pilsner malt and up to 20% white sugar. Noble hops or Styrian Goldings are commonly used. Belgian yeast strains are used - those that produce fruity esters, spicy phenolics and higher alcohols - often aided by slightly warmer fermentation temperatures. Spice additions are generally not traditional, and if used, should not be recognizable as such. Fairly soft water.

\* **Technique:** Single infusion mash. Sugar added to boil kettle. Higher fermentation temperature (68-75 °F), 2-3 week conditioning time after fermentation. Bottle conditioning at high temperatures to develop carbonation. Caged corks to prevent escape of CO2.

**Commercial Examples:** Westmalle Tripel, La Rulles Tripel, St. Bernardus Tripel, Chimay Cinq Cents (White), Watou Tripel, Val-Dieu Triple, Affligem Tripel, Grimbergen Tripel, La Trappe Tripel, Witkap Pater Tripel, Corsendonk Abbey Pale Ale, St. Feuillien Tripel, Bink Tripel, Tripel Karmeliet, New Belgium Trippel, Unibroue La Fin du Monde, Dragonmead Final Absolution, Allagash Tripel Reserve, Victory Golden Monkey

## 18D. Belgian Golden Strong Ale

	Aroma				Appearance							
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Low	Low - med.		Low - med.	Yellow - med. gold	Good	Massive	White	Long-lasting			
<b>Character:</b>	light	Distinctive perfumy, floral, <i>spicy</i>	Complex, high fruity esters (pears, oranges, apples), med. spicy, peppery phenols.	Soft, spicy, perfumy alcohols		Effervescent	Rocky, often beady	Belgian lace on glass				
<b>Optional:</b>		No hops										
<b>Unacceptable:</b>			Diacetyl	Solventy, hot								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>		Med. - high	Low - med.			Dry - v. dry	Low - med.	Lt. - med.	High			Noticable
<b>Character:</b>		<i>Phenols might increase bitter</i>	Spicy	Complex, high fruity esters (pears, oranges, apples), low - med. peppery phenols.	Fruity, spicy & alcohol supported by soft malt	<i>Due to CO2 &amp; bitter, low - med. bitter aftertaste.</i>	Soft, spicy, sweetish alcohols	Thinner than OG would suggest	Effervescent, reduces perception of body	Pleasant creaminess		Smooth alcohol warmth
<b>Optional:</b>			No hops								Detectable	
<b>Unacceptable:</b>				Diacetyl			Solventy, hot			<i>Cloying</i>		Hot, solventy
	<b>OG:</b> 1.070 - 1.095	<b>FG:</b> 1.005 - 1.016		<b>ABV:</b> 7.5 - 10.5%		<b>IBU:</b> 22 - 35			<b>SRM:</b> 3 - 6			

**Overall Impression:** A golden, complex, effervescent, strong Belgian-style ale. *Thinner-bodied and lighter in color than Tripel*

**History:** Originally developed by the Moortgat brewery after WWII as a response to the growing popularity of Pilsner beers. (Duvel is the original version, and, in its modern form, dates to the early 1970s. Earlier versions date to the 1930s, but were dark in color.)

**Comments:** Strongly resembles a Tripel, but may be even paler, lighter-bodied and even crisper and drier, *usually with more noticeable alcohol and less malt character*. The drier finish and lighter body also serves to make the assertive hopping and spiciness more prominent. References to the devil are included in the names of many commercial examples of this style, referring to their potent alcoholic strength and as a tribute to the original example (Duvel). The best examples are complex and delicate. High carbonation helps to bring out the many flavors and to increase the perception of a dry finish. Traditionally bottle-conditioned (“refermented in the bottle”).

**Ingredients:** The light color and relatively light body for a beer of this strength are the result of using Pilsner malt and up to 20% white sugar. Noble hops or Styrian Goldings are commonly used. Belgian yeast strains are used - those that produce fruity esters, spicy phenolics and higher alcohols - often aided by slightly warmer fermentation temperatures. Fairly soft water.

**Commercial Examples:** Duvel, Russian River Damnation, Hapkin, Lucifer, Brigand, Judas, Delirium Tremens, Dulle Teve, Piraat, Great Divide Hades, Avery Salvation, North Coast Pransqster, Unibroue Eau Benite, AleSmith Horny Devil

## 18E. Belgian Dark Strong Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	Strong	No - v. low		Low - med.	Dk. amber - dk. copper brown	Clear - slightly hazy	Huge	Cream - lt. tan	Persistent			
<b>Character:</b>	Complex rich, malty sweet	noble	Med. low - strong complex esters (raisin, plum, dried cherry, fig, prune).	Complex soft, spicy, perfumy, rose-like alcohol			Dense, moussy					
<b>Optional:</b>	Munich-like, caramel, toast &/or bready		Low - med. spiciness, us. peppery, not clove-like									
<b>Unacceptable:</b>	Dark, roast		Diacetyl	Hot, solventy. Detectable spice adds	Dark brown or black							
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med.	Low	No - v. low		Med. malty - slightly bitter	Sweet - dry	Low - med.	Med. lt. - v. full	High			Noticeable
<b>Character:</b>	Complex rich, malty sweet	Higher for sweeter, fuller beers	noble	Med. low - strong complex esters (dried fruit, plum).	Alcohol gives some balance to malt. Smooth flavor blend.		Complex soft, spicy, perfumy, rose-like alcohol					Smooth alcohol warmth
<b>Optional:</b>	Munich-like, caramel, toast &/or bready	Higher bitterness in full-bodied beers		Low - med. spiciness, us. peppery, not clove-like	Light bitter	Trappist drier, Abbey sweeter		Trappist thinner, Abbey fuller		Creamy		
<b>Unacceptable:</b>	Dark, roast, crystal malt sweetness			Diacetyl			Hot, solventy. Detectable spice adds		CO2 "bite"			Hot, solventy.
	<b>OG:</b> 1.075 - 1.110	<b>FG:</b> 1.010 - 1.024		<b>ABV:</b> 8 - 11%		<b>IBU:</b> 20 - 35			<b>SRM:</b> 12 - 22			

**Overall Impression:** A dark, very rich, complex, very strong Belgian ale. Complex, rich, smooth and dangerous.

**History:** Most versions are unique in character reflecting characteristics of individual breweries. *Developed after World War 2. Some products are quite recent (since 1990s).*

**Comments:** Authentic Trappist versions tend to be drier (Belgians would say "more digestible") - *moderately dry to dry* - than Abbey versions, which can be rather sweet & full-bodied (*medium-dry to sweet*). Higher bitterness is allowable in Abbey-style beers with a higher FG. Barleywine-type beers & Spiced/Christmas-type beers are Belgian Specialty Ales. Traditionally bottle-conditioned ("referred in the bottle").

**Ingredients:** Belgian yeast strains prone to production of higher alcohols, esters, & sometimes phenolics. Soft to hard water. Impression of complex grain bill, but many versions are quite simple, with caramelized sugar syrup or unrefined sugars & yeast providing complexity. Homebrewers use Belgian Pils or pale base malt, Munich-type malts for maltiness, other Belgian specialty grains for character. Caramelized syrup or unrefined sugar lightens body & adds color & flavor (esp. if dark sugars used). Noble-type, English-type or Styrian Goldings hops common. Spices generally not used; keep subtle & in the background. Avoid US/UK crystal type malts (they provide the wrong type of sweetness).

**Commercial Examples:** Westvleteren 12 (yellow cap), Rochefort 10 (blue cap), St. Bernardus Abt 12, Gouden Carolus Grand Cru of the Emperor, Achel Extra Brune, Rochefort 8 (green cap), Southampton Abbot 12, Chimay Grande Reserve (Blue), Brasserie des Rocs Grand Cru, Gulden Draak, Kasteelbier Bière du Chateau Donker, Lost Abbey Judgment Day, Russian River Salvation

## 19A. Old Ale

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>				Low	Lt. amber - v. dk. reddish brown	Clear	Low - med.	Cream - lt. tan				
<b>Character:</b>	Malty sweet	Us. absent	Fruity esters		Us. fairly dark							
<b>Optional:</b>	Complex caramelly, molasses, nutty, toffee, treacle specialty malt		dried-fruit, vinous	Oxidative, alcohol, sherry- or port-like	Darkening from oxidation, age	Opaque due to dark color	Reduced due to age, alcohol		Reduced due to age, alcohol			
<b>Unacceptable:</b>				Harsh, hot								
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. - high			Med. - high	Malty sweet	Semi-sweet - dry	Noticeable	Med. - full	Low - med.			
<b>Character:</b>	Luscious complexity, often nut, caramel, molasses			Fruity esters			Alcoholic strength	chewy				
<b>Optional:</b>	Lt. chocolate, roast	Bitterness drops w/ age		Dried fruit, vinous, V. low - low diacetyl	Well-hopped		Low oxidative: Madeira, sherry- or Port-like. Subtle Brett or lactic notes	Lower in aged	Drops w/ age			Alcohol warmth
<b>Unacceptable:</b>	Excessive dark malt						Overwhelming alcohol. Excessive Brett, lactic					Harsh, hot
	<b>OG:</b> 1.060 - 1.090		<b>FG:</b> 1.015 - 1.022		<b>ABV:</b> 6 - 9%		<b>IBU:</b> 30 - 60			<b>SRM:</b> 10 - 22		

**Overall Impression:** An ale of significant alcoholic strength, bigger than strong bitters and brown porters, though usually not as strong or rich as barleywine. Usually tilted toward a sweeter, maltier balance. “It should be a warming beer of the type that is best drunk in half pints by a warm fire on a cold winter’s night” - Michael Jackson.

**History:** A traditional English ale style, mashed at higher temperatures than strong ales to reduce attenuation, then aged at the brewery after primary fermentation (similar to the process used for historical porters). Often had age-related character (lactic, Brett, oxidation, leather) associated with “stale” beers. Used as stock ales for blending or enjoyed at full strength (stale or stock refers to beers that were aged or stored for a significant period of time). Winter warmers are a more modern style that are maltier, fuller-bodied, often darker beers that may be a brewery’s winter seasonal special offering.

**Comments:** Strength and character varies widely. Fits in the style space between normal gravity beers (strong bitters, brown porters) and barleywines. Can include winter warmers, strong dark milds, strong (and perhaps darker) bitters, blended strong beers (stock ale blended with a mild or bitter), and lower gravity versions of English barleywines. Many English examples, particularly winter warmers, are lower than 6% ABV.

**Ingredients:** Well-modified pale malt (us. English), judicious quantities of caramel & other specialty malts. Some darker examples suggest dark malts (e.g., chocolate, black malt) but use sparingly to avoid overly roast notes. Adjuncts (e.g. molasses, treacle, invert sugar, dark sugar) often used, as are starchy adjuncts (maize, flaked barley, wheat) and malt extracts. Hop variety is not as important, as the relative balance and aging process negate much of the varietal character. British ale yeast that has low attenuation, but can handle higher alcohol levels, is traditional.

**Commercial Examples:** Gale’s Prize Old Ale, Burton Bridge Olde Expensive, Marston Owd Roger, Greene King Olde Suffolk Ale , J.W. Lees Moonraker, Harviestoun Old Engine Oil, Fuller’s Vintage Ale, Harvey’s Elizabethan Ale, Theakston Old Peculier (peculiar at OG 1.057), Young’s Winter Warmer, Sarah Hughes Dark Ruby Mild, Samuel Smith’s Winter Welcome, Fuller’s 1845, Fuller’s Old Winter Ale, Great Divide Hibernation Ale, Founders Curmudgeon, Cooperstown Pride of Milford Special Ale, Coniston Old Man Ale, Avery Old Jubilation

## 19B. English Barleywine

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	V. rich	Low - high	Med. - high	Low - med.	Dk. gold - dk. brown	Brilliant - good	Low - med.	Off - white				
<b>Character:</b>	strongly malty		Fruity (dried fruit)	alcohol								
<b>Optional:</b>	caramel-like, bready, toasty, toffee, molasses, &/or treacle. Less with age.		Sherry, vinous or port-like with age. V. low - low diacetyl	Less with age	Ruby highlights, alcohol legs	Chill haze, viscosity			Low persistence			
<b>Unacceptable:</b>				Harsh, solventy		Opaque						
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Strong	Med. - Med. High	Low - med. high	Med. - med. high	Med. malty - med. hoppy	Med. sweet - med. dry		Full	Low - med.			Noticeable
<b>Character:</b>	Intense, complex multi-layered, med. - high malt sweet		Us. UK types	Fruity (dried fruit)	sweet			Chewy		Velvety, luscious		Smooth aged alcohol
<b>Optional:</b>	Bready, biscuity, nutty, deep toast, dark caramel, toffee, &/or molasses			Sherry, vinous or port-like with age. V. low - low diacetyl			Oxidative &/or vinous, complex alcohol		Less with age	Less with age		
<b>Unacceptable:</b>						Harsh, solventy						Harsh, hot
	<b>OG:</b> 1.080 - 1.120		<b>FG:</b> 1.018 - 1.030		<b>ABV:</b> 8 - 12%		<b>IBU:</b> 35 - 70			<b>SRM:</b> 8 - 22		

**Overall Impression:** The richest and strongest of the English Ales. A showcase of malty richness and complex, intense flavors. The character of these ales can change significantly over time; both young and old versions should be appreciated for what they are. The malt profile can vary widely; not all examples will have all possible flavors or aromas.

**History:** Usually the strongest ale offered by a brewery, and in recent years many commercial examples are now vintage-dated. Normally aged significantly prior to release. Often associated with the winter or holiday season. (*The name "Barleywine" only dates to 1901, although this style is centuries old in its various forms.*)

**Comments:** Although often a hoppy beer, the English Barleywine places less emphasis on hop character than the American Barleywine and features English hops. English versions can be darker, maltier, fruitier, and feature richer specialty malt flavors than American Barleywines.

**Ingredients:** Well-modified pale malt should form the backbone of the grist, with judicious amounts of caramel malts. Dark malts should be used with great restraint, if at all, as most of the color arises from a lengthy boil. English hops such as Northdown, Target, East Kent Goldings and Fuggles. Characterful English yeast.

**Commercial Examples:** Thomas Hardy's Ale, Burton Bridge Thomas Sykes Old Ale, J.W. Lee's Vintage Harvest Ale, Robinson's Old Tom, Fuller's Golden Pride, AleSmith Old Numbskull, Young's Old Nick (unusual in its 7.2% ABV), Whitbread Gold Label, Old Dominion Millenium, North Coast Old Stock Ale (when aged), Weyerbacher Blithering Idiot

## 19C. American Barleywine

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head			Persistence		
							Size	Color				
<b>Intensity:</b>	V. Rich	<i>Med. - v. high</i>	<i>Low - med. high</i>	Low - med. high	Lt. amber - med. copper	Brilliant - good	<i>Med. low - high</i>	Off - white - lt. tan				
<b>Character:</b>		Us. citrusy, resinous US types	Fruity	alcohol								
<b>Optional:</b>	Intense, sweet, caramelly, bready or neutral Less with age.	Other types (floral, earthy or spicy English) or blend. <i>Less with age.</i>	Less with age. <i>Sherry, vinous or port-like with age.</i>	<i>Less with age</i>	Ruby highlights, alcohol legs, dk. brown color	Chill haze, viscosity				Low persistence		
<b>Unacceptable:</b>			Diacetyl	<i>Harsh, solventy</i>		Opaque						
Flavor							Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	Med. low - med. high	<i>Med. high - v. high</i>	Med. - high	Low - med.	<i>Med. - v. hoppy</i>	Med. sweet - v. dry	Noticeable	Full	Low - med.			<i>Noticeable</i>
<b>Character:</b>	Malt sweet med. - high malt sweet	<i>Noticable</i>	Any type	Fruity	<i>Strongly malty, countered by bitter</i>		Alcohol	Chewy		Velvety, luscious		Smooth aged alcohol
<b>Optional:</b>	Low - med. bready, caramel			Smoother, lower with age. V. low - low oxidized notes.		<i>Drier with age</i>			<i>Less with age</i>	Less with age		
<b>Unacceptable:</b>	High bready, caramel notes. Roasted or burnt notes.			Diacetyl, <i>Excessive oxidized notes</i>			Sharp, solventy			Syrupy, underattenuated		Harsh, hot
	<b>OG:</b> 1.080 - 1.120	<b>FG:</b> 1.016 - 1.030		<b>ABV:</b> 8 - 12%		<b>IBU:</b> 50 - 120			<b>SRM:</b> 10 - 19			

**Overall Impression:** A well-hopped American interpretation of the richest and strongest of the English ales. The hop character should be evident throughout, but does not have to be unbalanced. The alcohol strength and hop bitterness often combine to leave a very long finish.

**History:** Usually the strongest ale offered by a brewery, and in recent years many commercial examples are now vintage-dated. Normally aged significantly prior to release. Often associated with the winter or holiday season. (*An American interpretation of English Barleywine adapted to use locally available materials, first developed in the late 1970s.*)

**Comments:** The American version of the Barleywine tends to have a greater emphasis on hop bitterness, flavor and aroma than the English Barleywine, and often features American hop varieties. Differs from an Imperial IPA in that the hops are not extreme, the malt is more forward, and the body is richer and more characterful.

**Ingredients:** Well-modified pale malt should form the backbone of the grist. Some specialty or character malts may be used. Dark malts should be used with great restraint, if at all, as most of the color arises from a lengthy boil. Citrusy American hops are common, although any varieties can be used in quantity. Generally uses an attenuative American yeast.

**Commercial Examples:** Sierra Nevada Bigfoot, Great Divide Old Ruffian, Victory Old Horizontal, Rogue Old Crustacean, Avery Hog Heaven Barleywine, Bell's Third Coast Old Ale, Anchor Old Foghorn, Three Floyds Behemoth, Stone Old Guardian, Bridgeport Old Knucklehead, Hair of the Dog Doggie Claws, Lagunitas Olde GnarleyWine, Smuttynose Barleywine, Flying Dog Horn Dog

## 22A. Classic Rauchbier

	Aroma					Appearance						
	Malt	Hops	Yeast	Other	Color	Clarity	Head					
							Size	Color	Persistence			
<b>Intensity:</b>	<i>Low - med.</i>	No - Low	None	<i>v. low - med. high</i>	Med. amber - dk. brown	v. clear	Large	Cream - tan colored	<i>Good</i>			
<b>Character:</b>	Semi-sweet, toasty or malty		Clean lager	Beechwood smoke (smoky, bacon-like, woody)			Rich, creamy					
<b>Optional:</b>	Smoke decreases as malt increases & vice-versa			Almost greasy								
<b>Unacceptable:</b>			Fruity esters, diacetyl, DMS									
	Flavor						Mouthfeel					
	Malt:	Hop		Yeast	Balance	Finish	Other	Body	Carbonation	Texture	Astringency	Other
		Bitterness	Flavor									
<b>Intensity:</b>	<i>Low - med.</i>	Med.	No - Med.	None	<i>Semi-sweet - balanced</i>	Med. dry - dry	<i>Low - high</i>	Med.	Med. - med. high			
<b>Character:</b>	Märzen-like: malty, toasty rich	<i>balanced</i>	Noble	Clean lager	Complementary smoke & malt	Drier from smoke	Beechwood smoke (smoky, bacon-like, woody)			Smooth lager		
<b>Optional:</b>	Smoke decreases as malt increases & vice-versa						Almost greasy					
<b>Unacceptable:</b>				Fruity esters, diacetyl, DMS			Harsh, bitter, burnt, charred, rubbery, sulfury or phenolic smoke				Significant astringent, phenolic harshness	
	<b>OG:</b> 1.050 – 1.057		<b>FG:</b> 1.012 – 1.016		<b>ABV:</b> 4.8 – 6%		<b>IBU:</b> 20 – 30			<b>SRM:</b> 10 - 19		

**Overall Impression:** Märzen/Oktobertfest-style (see 3B) beer with a sweet, smoky aroma and flavor and a somewhat darker color.

**History:** A historical specialty of the city of Bamberg, in the Franconian region of Bavaria in Germany. Beechwood-smoked malt is used to make a Märzen-style amber lager. The smoke character of the malt varies by maltster; some breweries produce their own smoked malt (rauchmalz).

**Comments:** The intensity of smoke character can vary widely; not all examples are highly smoked. Allow for variation in the style when judging. Other examples of smoked beers are available in Germany, such as the Bocks, Hefe-Weizen, Dunkel, Schwarz, and Helles-like beers, including examples such as Spezial Lager. Brewers entering these styles should use Other Smoked Beer (22B) as the entry category.

**Ingredients:** German Rauchmalz (beechwood-smoked Vienna-type malt) typically makes up 20-100% of the grain bill, with the remainder being German malts typically used in a Märzen. Some breweries adjust the color slightly with a bit of roasted malt. German lager yeast. German or Czech hops.

**Commercial Examples:** Schlenkerla Rauchbier Märzen, Kaiserdom Rauchbier, Eisenbahn Rauchbier, Victory Scarlet Fire Rauchbier, Spezial Rauchbier Märzen, Saranac Rauchbier