Beer Styles Study Guide

Today, there are hundreds of documented beer styles and a handful of organizations with their own unique classifications. As beer styles continue to evolve, understanding the sensory side of craft beer will help you more deeply appreciate and share your knowledge and enthusiasm for the beverage of beer.

Take a deeper dive into America’s craft beer styles and improve your ability to describe the tastes, textures and aromas of beer. Here is your study guide that will help prepare you for what you might encounter when tasting craft beer.

How to Use the Study Guide

The CraftBeer.com Beer Styles Study Guide (below and available as a PDF) is for those who want to dive even deeper and includes quantitative style statistics not found in the Beer Styles section. Using an alphabetical list of triggers — from alcohol to yeast variety — this text will help describe possible characteristics of a specific beer style.

The best part of learning about craft beer is getting to taste and experience what you’re studying. Use the CraftBeer.com Tasting Sheet to help you analyze and describe what you taste and if it's appropriate for a particular beer style.

The Beer Styles Study Guide may provide more information than many beer novices care to know. However, as your beer journey unfolds, your desire for more descriptors and resources will grow.

Do All Craft Brewers Brew Beer to Style?

Craft beer resides at the intersection of art and science. It is up to each individual brewer to decide whether they want to create beer within specific style guidelines or forge a new path and break the mold of traditional styles.

Because so many craft brewers brew outside style guidelines, it is impossible to make a list that fully represents the spectrum of beers being created today. CraftBeer.com Beer Styles include many common styles being made in the U.S. today, but is not exhaustive.

Common U.S. Beer Styles

Craft brewers use a wide variety of ingredients to achieve the aroma, body, flavor and finish they desire in their beer. They often take classic, old-world styles from great brewing countries like England, Germany and Belgium and add their own twists by modifying the amount or type of ingredients or the brewing processes. Due to the
popularity of craft beer in America, there are now multiple beer styles uniquely credited to the U.S.

Due to the constant experimentation and exploration by today’s U.S. brewers, new beer styles are constantly evolving. That makes it difficult, if not impossible, to fully document all types of beer being made at any given time. Another factor is that new beer styles usually become established by developing a track record of multiple breweries making the same type of beer over years and years. In other words, it takes time before any trendy new type of beer is deemed a recognized beer style.

To create this study guide, we looked at the world beer styles recognized by the Brewers Association (publishers of CraftBeer.com) and narrowed that list down to 79 styles in 15 style families. Descriptive terms are always listed from least to most intense.

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**Overview of the Study Guide**

**Explanation of Quantitative Style Statistics**

- **Original Gravity (OG):** The specific gravity of wort (unfermented beer) before fermentation. A measure of the total amount of solids that are dissolved in the wort, it compares the density of the wort to the density of water, which is conventionally given as 1.000 at 60 Fahrenheit.

- **Final Gravity (FG):** The specific gravity of a beer as measured when fermentation is complete (when all desired fermentable sugars have been converted to alcohol and carbon dioxide gas). When fermentation has occurred, this number is always less than Original Gravity.

- **Alcohol By Volume (ABV):** A measurement of the alcohol content in terms of the percentage volume of alcohol per volume of beer. Caution: This measurement is always higher than Alcohol by Weight (not included in this guide). To calculate the approximate volumetric alcohol content, subtract FG from OG and divide by 0.0075.

  \[
  \text{Example: } \text{OG} = 1.050, \text{FG} = 1.012 \text{ ABV} = \frac{(1.050 - 1.012)}{0.0075} = 0.038 / 0.0075 = 5.067
  \text{ABV} = 5\% \text{ (approximately)}
  \]

- **International Bitterness Units (IBUs):** 1 bitterness unit = 1 milligram of isomerized (exposed to heat) hop alpha acids in one liter of beer. Can range from 0 (lowest—no bitterness) to above 100 IBUs. Usually the general population cannot perceive bitterness above or below a specific range of IBUs (said to be below 8 and above 80 IBUs by some sources).

- **Bitterness Ratio (BU:GU):** A comparison of IBUs (Bitterness Units) to sugars (Gravity Units) in a beer. .5 is perceived as balanced, less than .5 is perceived as sweeter and over .5 is perceived as more bitter. Formula: Divide IBU by the last two digits of Original Gravity (remove the 1.0) to give relative bitterness. Note: Carbonation also balances beer’s bitterness, but is not factored in this equation. This is a concept from Ray Daniels, creator of the Cicerone® Certification Program.
Example: pale ale with 37 IBUs and an OG of 1.052 is $37/52 = 0.71$ BU:GU

- **Standard Reference Method (SRM):** Provides a numerical range representing the color of a beer. The common range is 2-50. The higher the SRM, the darker the beer. SRM represents the absorption of specific wavelengths of light. It provides an analytical method that brewers use to measure and quantify the color of a beer. The SRM concept was originally published by the American Society of Brewing Chemists.
  
  Examples: Very Light (1-1.5), Straw (2-3 SRM), Pale (4), Gold (5-6), Light Amber (7), Amber (8), Medium Amber (9), Copper/Garnet (10-12), Light Brown (13-15), Brown/Reddish Brown/Chestnut Brown (16-17), Dark Brown (18-24), Very Dark (25-39), Black (40+)

- **Volumes of CO2 (v/v):** Volumes of CO2 commonly vary from 1-3+ v/v (volumes of dissolved gas per volume of liquid) with 2.5-2.7 volumes being the most common in the U.S. market. Beer’s carbonation comes from carbon dioxide gas, which is a naturally occurring byproduct created during fermentation by yeast and a variety of microorganisms. The amount of carbonation is expressed in terms of “volumes” of CO2. A volume is the space the CO2 gas would occupy at standard temperature and pressure, compared to the volume of beer in which it’s dissolved. So one keg of beer at 2.5 volumes of CO2 contains enough gas to fill 2.5 kegs with CO2.

- **Apparent Attenuation (AA):** A simple measure of the extent of fermentation wort has undergone in the process of becoming beer, Apparent Attenuation reflects the amount of malt sugar that is converted to ethanol during fermentation. The result is expressed as a percentage and equals 65% to 80% for most beers. Or said more simply: Above 80% is very high attenuation with little residual sugar. Below 60% is low attenuation with more residual sugar remaining. Formula: $AA = \frac{(OG-FG)}{(OG-1)} \times 100$
  
  Example: $OG = 1.080$, $FG = 1.020$ $AA = \frac{(1.080 - 1.020)}{(1.080 - 1)} \times 100$ $AA = \frac{(0.060)}{(0.080)} \times 100$ $AA = 0.75 \times 100$ $AA = 75$

- **Commercial Examples:** List some U.S. brewery produced examples of this style.

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The A-Z of Beer Styles

*Use this alphabetical list of triggers as a guide to help you when describing possible characteristics of a specific beer style.*

**Alcohol**

- Ranges: not detectable, mild, noticeable, harsh
- A synonym for ethyl alcohol or ethanol, the colorless primary alcohol component of beer.
- Alcohol ranges for beer vary from less than 3.2% to greater than 14% ABV. Sensed in aroma, flavor and palate of beer
- Fusel alcohol can also exist in beer
Brewing and Conditioning Process

- Brewers use a wide variety of techniques to modify the brewing process. Some of the variables they play with might include variable mashing, steeping, unique fermentation temperatures, multiple yeast additions, barrel aging and blending, dry hopping and bottle conditioned.

Carbonation (CO2): Visual

- Ranges: none, slow, medium, fast rising bubbles
- Carbonation is a main ingredient in beer. It lends body or weight on the tongue and stimulates the trigeminal nerves, which sense temperature, texture and pain in the face. Carbonation can be detected as an aroma (carbonic acid). It also affects appearance and is what creates the collar of foam common to most beer styles.
- Carbonation can be naturally occurring (produced by yeast during fermentation) or added to beer under pressure. Nitrogen can also be added to beer, providing smaller bubbles and a softer mouthfeel compared to CO2.

Clarity: The degree to which solids in suspension are absent in beer; different from color and brightness.

- Ranges: brilliant, clear, slight haze, hazy, opaque
- Solids can include unfermented sugars, proteins, yeast sediments and more.
- The degree to which solids are present in solution is referred to as turbidity.

Collar of Foam

- Head Retention/Texture
  - Retention Ranges: none, poor (up to 15 seconds), moderate (15 to 60 seconds), good (more than 60 seconds)
  - Texture Ranges: thin, interrupted, foamy, fluffy, rocky, mousse-like

Color (SRM): See SRM under Quantitative above.

Country of Origin

- The country from which a style originates

Food Pairing: Cheese, Entree, Dessert

Glass

Hops

- Flavor and aroma ranges: citrus, tropical, fruity, floral, herbal, onion-garlic, sweaty, spicy, woody, green, pine, spruce, resinous
- Bitterness ranges: restrained, moderate, aggressive, harsh
• Hops deliver resins and essential oils that influence beer’s aroma, flavor, bitterness, head retention, astringency, and perceived sweetness. They also increase beer’s stability and shelf life.
• Brewers today use well over 100 different varieties of hops worldwide. Hops grown in the U.S. contribute an estimated 30 percent to the global supply.

Malt

• Flavor and aroma ranges: bread flour, grainy, biscuit, bready, toast, caramel, prune-like, roast, chocolate, coffee, smoky, acrid
• Malt has been called the soul of beer. It is the main fermentable ingredient, providing the sugars that yeast use to create alcohol and carbonation.
• Malt is converted barley or other grains that have been steeped, germinated, heated, kilned (or roasted in a drum), cooled, dried and then rested.
• A wide variety of barley and other malts are used to make beer, including pale malt (pilsner and pale two-row), higher temperature kilned malt (Munich and Vienna), roasted/specialty malt (chocolate and black) and unmalted barley. Wheat malt is commonly used as well.
• Malt provides fermentable and non-fermentable sugars and proteins that influence beer’s aroma, alcohol, body, color, flavor and head retention.

Other Ingredients

• Adjuncts are ingredients that have typically not been malted, but are a source of fermentable sugars.
• Common adjuncts include: candy sugar, honey, molasses, refined sugar, treacle, maple syrup
• Unmalted starchy adjuncts: oats, rye, wheat, corn/maize, rice
  ○ Note: Many of these grains can be malted to create unique flavors compared to their unmalted counterparts.
• Other: fruit, herbs, roasted (unmalted) barley or wheat, spices, wood

Oxidative/Aged Qualities

• Can come from hops, malt or yeast. Only listed where appropriate for the specific style.
• Aroma/Flavor: almond, blackcurrant, E-2-nonenal (papery/cardboard), honey, metallic, sherry, sweat socks, others
• Color: Beer darkens over time due to oxygen ingress.

Palate

• Palate refers to the non-taste sensations felt on the mouth and tongue when tasting a beer.
  The palate of a beer can be sensed as:
• Astringency
- Ranges: low, medium(-), medium, medium(+), high
- Body
  - Ranges: drying, soft, mouth-coating, sticky
- Palate Carbonation
  - Ranges: low, medium, high
- Length/Finish
  - Ranges: short (less than 15 seconds), medium (up to 60 seconds), long (more than 60 seconds)

**Temperature**

- Storage of draught beer should remain at 38° F to retain the level of carbonation created during fermentation.
- The service temperature of beer has an impact on the sensory aspect of a beer.
- In general, a beer will exhibit an increase in perceived aromas and flavors if served warmer than a beer that is served at a cooler temperature.
- A general rule of thumb calls for ales to be served at a warmer temperature (45-55° F) than their lager counterparts (40-45° F).

**Water**

- Common taste descriptors: chalk, flint, sulfur and more
- Beer is mostly water, which makes water quite an important ingredient. Some brewers make their beer without altering the chemistry of their water sources. Many do modify the water to make it most suitable to deliver the beer characteristics they hope to highlight. It provides minerals and ions that add various qualities to beer.
- Common minerals: carbonate, calcium, magnesium, sulfate

**Yeast, Microorganisms and Fermentation Byproducts**

- Yeast eats sugars from malted barley and other fermentables, producing carbonation, alcohol and aromatic compounds. The flavor of yeast differs based on yeast strain, temperature, time exposed to the beer, oxygen and other variables.
- Types of Yeast:
  - Ale: Saccharomyces Cerevisiae (ester driven). Commonly referred to as top fermenting yeast, it most often ferments at warmer temperatures (60-70F).
  - Lager: Saccharomyces Pastorianus (often lends sulfurous compounds). Commonly referred to as bottom fermenting yeast, it most often ferments at cooler temperatures (45-55F).
  - Weizen Yeast: Common to some German-style wheat beers and is considered an ale yeast.
  - Brettanomyces: wild yeast with flavors like barnyard, tropical fruit, and more.
Microorganisms: (bacteria) Acetobacter (produces acetic acid), Lactobacillus/Pediococcus (produce lactic acid), others

Byproducts of Fermentation

- For a robust spreadsheet on many byproducts or agents in beer see Flavor Components in Beer (PDF)
- Common byproducts of yeast fermentation:
  - Esters:
    - Aromas (volatiles): apple, apricot, banana, blackcurrant, cherry, fig, grapefruit, kiwi, peach, pear, pineapple, plum, raisin, raspberry, strawberry, others
    - Common esters include:
      - Isoamyl acetate (common from weizen ale yeast): banana, pear
      - Ethyl acetate: nail polish remover, solvent
      - Ethyl hexanoate: red apple, fennel
  - Phenols
    - Common phenols include:
      - 4-vinyl guaiacol: clove, cinnamon, vanilla
      - Chlorophenols: antiseptic, mouthwash
      - Syringol: smoky, campfire
      - Tannins/Polyphenols: velvet, astringent, sandpaper
  - Other fermentation byproducts
    - Common byproducts include (when acceptable to style):
      - 4-ethyl-phenol: barnyard, mice
      - 4-ethyl-guaiacol: smoked meat, clove
      - 3-methyl-2-butene-1-thiol: lightstruck
      - 2,3-butanedione (Diacetyl)
      - Acetaldehyde
      - Dimethyl sulphide (DMS)
      - Hydrogen sulphide

What is Craft Beer? What is a Craft Brewer?

Today is the best time in U.S. history to be a beer lover. The average American lives within 10 miles of a brewery, and the U.S. has more beer styles and brands to choose from than any other beer market in the world.

The definition of “craft beer” is difficult, as it means many different things to many different beer lovers. Thus, craft beer is not defined by CraftBeer.com. However, our parent organization, the Brewers Association, does define what it means to be an American craft brewer: A U.S. craft brewer is a smaller producer (making less than six million barrels of beer a year) and is independently owned. This definition allows the Brewers Association to provide statistics on the growing craft brewery community, which accounts for 99 percent of America’s 4,600+ breweries.
Visit BrewersAssociation.org for the complete craft brewer definition and details on the craft beer industry market segments: brewpubs, microbreweries and regional craft breweries.

**Why Craft Beer?**

Craft beer is enjoyed during everyday celebrations and is viewed by many as one of life’s special pleasures. Each glass displays the creativity and passion of its maker and the complexity of its ingredients. Craft beer is treasured by millions who see it as not merely a fermented beverage, but something to be shared, revered and enjoyed in moderation (see Savor the Flavor).

In the food arts world, craft beer is a versatile beverage that not only enhances food when expertly paired with a dish, but is also often brought into the kitchen as a cooking ingredient. Because of this, you will see suggested food pairings for each style in this guide. If you would like to geek out even further on beer and food pairing, check out CraftBeer.com’s Beer & Food Course (a free download).
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- Smoke Beer
- Specialty Beer
American Amber Ale

Style Family: Pale Ales
American-style amber ales have medium-high to high maltiness with medium to low caramel character. They are characterized by American-variety hops, which produce medium hop bitterness, flavor and aroma. American ambers are usually darker in color, have more caramel flavor and less hop aromatics, and may have more body. This style was first made popular by brewers from California and the Pacific Northwest.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>OG</td>
<td>1.048 - 1.058</td>
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<tr>
<td>FG</td>
<td>1.012 - 1.018</td>
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<td>ABV</td>
<td>4.4% - 6.1%</td>
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<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>69 - 75</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Sabre-Toothed Squirrel** Smog City Brewing Co.
- **Boont Amber** Anderson Valley Brewing Co.
- **Red Seal** North Coast Brewing Co.

Style A-Z

- **Alcohol** Mild to Noticeable
- **Color** Copper to Reddish Brown
- **Clarity** Clear to Slight Haze
- **Country of Origin** United States
- **Collar of Foam (Head Retention)** Good
- **Collar of Foam (Texture)** Foamy
- **Carbonation (Visual)** Medium to Fast Rising Bubbles
- **Food Pairing** Medium Cheddar
- **Entrée** Barbecue
- **Dessert** Banana Pound Cake
- **Glass** Tulip
- **Hop Aroma/Flavor** Citrus-like character is acceptable
- **Hop Ingredients** Horizon, Cascade, Centennial
- **Malt Aroma/Flavor** Caramel
- **Malt Ingredients** English Pale Ale or American Two-Row, Crystal, Victory
- **Palate Body** Mouth-Coating
- **Palate Carbonation** Medium to High
- **Palate Length/Finish** Short to Medium
- **Temperature** 45-55°F
- **Water** Varies
- **Yeast**
- **Type** Ale
- **Phenols** Not common to style
- **Esters** There may be levels of fruity-ester flavor

source: CraftBeer.com
American Pale Ale

Style Family: Pale Ales
An American interpretation of a classic English style. Characterized by floral, fruity, citrus-like, piney, resinous, or sulfur-like American-variety hop character, producing medium to medium-high hop bitterness, flavor and aroma. American-style pale ales have medium body and low to medium maltiness that may include low caramel malt character.

Quantitative Style Statistics

- OG: 1.044 - 1.050
- FG: 1.008 - 1.014
- ABV: 4.4% - 5.4%
- IBU: 30 - 50
- BU:GU: 0.68 - 1.00
- SRM: 6 - 14
- CO2 Volumes: 2 - 2.5
- Apparent Attenuation: 72 - 82

U.S. Commercial Examples

- Stick's Pale Ale: Bootstrap Brewing Co.
- Monterey Street: Central Coast Brewing Co.
- Mirror Pond: Deschutes Brewery

Style A-Z

- Alcohol: Not Detectable to Mild
- Brewing/ Conditioning Process: Dry-hopping or late hop additions to the kettle are common
- Color: Deep Golden to Copper or Light Brown
- Clarity: Clear to Slight Haze
- Country of Origin: United States
- Collar of Foam (Head Retention): Good
- Collar of Foam (Texture): Foamy
- Carbonation (Visual): Medium to Fast Rising Bubbles
- Food Pairings
  - Cheese: Mild or Medium Cheddar
  - Entrée: Roasted or Grilled Meats
  - Dessert: Apple Pie
- Glass: Tulip
- Hop Aroma/Flavor: Hop aroma and flavor are medium to medium-high, exhibiting fruity, floral, and citrus-like American-variety hop aromas. Hop bitterness is medium to medium-high
- Hop Ingredients: Horizon, Cascade, Centennial
- Malt Aroma/Flavor: Biscuit, Bready, Caramel
- Malt Ingredients: Pale, Caramel, Munich
- Palate Body: Soft
- Palate Carbonation: Medium to High
- Palate Length/Finish: Short to Medium
- Temperature: 45-55°F
- Water: Sulfite content may vary, but carbonate content should be relatively low
- Yeast
  - Type: Ale
- Phenols: Not common to style
- Esters: Citrus, Tropical Fruit, Pine

source: CraftBeer.com
English-Style Bitter

Style Family: Pale Ales
A very sessionable, lower-alcohol, malt-driven style. Broad style description commonly associated with cask-conditioned beers. The light- to medium-bodied ordinary bitter is gold to copper in color, with a low residual malt sweetness. Hop bitterness is medium.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
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<tbody>
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<td>OG</td>
<td>1.033 - 1.038</td>
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<tr>
<td>FG</td>
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<td>IBU</td>
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<td>BU:GU</td>
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<td>SRM</td>
<td>5 - 12</td>
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<td>CO2 Volumes</td>
<td>1 - 1.5</td>
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<tr>
<td>Apparent Attenuation</td>
<td>68 - 82</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Sawtooth**  | Left Hand Brewing Co.
- **Pale Ale**   | Rio Blanco Brewing Co.
- **Redfeather** | Black Raven Brewing Co.

Style A-Z

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
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<tbody>
<tr>
<td>Alcohol</td>
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<td>Color</td>
<td>Gold to Copper</td>
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<tr>
<td>Clarity</td>
<td>Clear to Brilliant</td>
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<tr>
<td>Country of Origin</td>
<td>United Kingdom</td>
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<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor</td>
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<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin</td>
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<tr>
<td>Carbonation (Visual)</td>
<td>Slow Rising Bubbles</td>
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</table>

Food Pairings

- **Cheese**  | Firm English Cheeses
- **Entrée**  | Roasted Chicken, Fish and Chips
- **Dessert** | Oatmeal Raisin Walnut Cookies

Glass

- **Nonic Pint**

Hop Aroma/Flavor

- Hop aroma may be evident at the brewer’s discretion

Hop Ingredients

- Kent Goldings

Malt Aroma/Flavor

- Low to medium residual malt sweetness is present

Malt Ingredients

- British Pale Ale, Aromatic, Crystal, Special Roast

Palate Body

- Drying to Soft

Palate Carbonation

- Low

Palate Length/Finish

- Short

Temperature

- 50-55°F

Water

- Varies

Yeast

- Ale

Phenols

- Not common to style

Esters

- Fruity esters are common.

Fermentation Byproducts

- Low-level diacetyl aromas and flavor are acceptable

source: CraftBeer.com
Blonde Ale

Style Family: Pale Ales
One of the most approachable styles, a golden or blonde ale is an easy-drinking beer that is visually appealing and has no particularly dominating malt or hop characteristics. Rounded and smooth, it is an American classic known for its simplicity. Sometimes referred to as “golden ale.” These beers can have honey, spices and fruit added, and may be fermented with lager or ale yeast.

Quantitative Style Statistics

<table>
<thead>
<tr>
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<td>OG</td>
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<td>FG</td>
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<td>4.1% - 5.1%</td>
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<td>CO2 Volumes</td>
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<td>Apparent Attenuation</td>
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U.S. Commercial Examples

<table>
<thead>
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<td>True Blonde Ale</td>
<td>Ska Brewing Co.</td>
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<td>Foam Top</td>
<td>Beachwood Brewery &amp; BBQ</td>
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<tr>
<td>Kirby</td>
<td>Echo Brewing Co.</td>
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Style A-Z

<table>
<thead>
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<th>Property</th>
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<td>Country of Origin</td>
<td>United States</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin to Interrupted</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Medium to Fast Rising Bubbles</td>
</tr>
</tbody>
</table>

Food Pairings

- Cheese: Pepper Jack
- Entrée: Spaghetti and Meatballs
- Dessert: Sugar Cookies

Glass: Tulip

Hop Aroma/Flavor: Hop aroma is low to medium-low, present but not dominant. Hop bitterness is low to medium-low.

Hop Ingredients: Williamette

Malt Aroma/Flavor: Light malt sweetness is present in the flavor. Bread, toast, biscuit and wheat flavors are common.

Malt Ingredients: American Two-Row, Crystal

Other ingredients: May include up to 25 percent Malted Wheat and sugar adjuncts.

Palate Body: Soft

Palate Carbonation: Medium to High

Palate Length/Finish: Short

Temperature: 45-50°F

Water: Varies

Yeast

Type: Lager or Ale

Phenols: Not common to style.

Esters: Fruity esters may be perceived but not predominant.

source: CraftBeer.com
English-Style Pale Ale (ESB)

**Style Family: Pale Ales**
ESB stands for “extra special bitter.” This style is known for its balance and the interplay between malt and hop bitterness. English pale ales display earthy, herbal English-variety hop character. Medium to high hop bitterness, flavor and aroma should be evident. The yeast strains used in these beers lend a fruitiness to their aromatics and flavor, referred to as esters. The residual malt and defining sweetness of this richly flavored, full-bodied bitter is medium to medium-high.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.040 - 1.056</td>
</tr>
<tr>
<td>FG</td>
<td>1.008 - 1.016</td>
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<tr>
<td>ABV</td>
<td>4.4% - 5.3%</td>
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<tr>
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<tr>
<td>BU:GU</td>
<td>0.50 - 0.71</td>
</tr>
<tr>
<td>SRM</td>
<td>5 - 12</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>1.5 - 2</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>71 - 80</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **5 Barrel Pale Ale** Odell Brewing Co.
- **Royal Scandal** Peticolas Brewing Co.
- **Moondog Ale** Great Lakes Brewing Co.

**Style A-Z**

- **Alcohol** Mild
- **Color** Gold to Copper
- **Clarity** Clear to Brilliant
- **Country of Origin** United Kingdom
- **Collar of Foam (Head Retention)** Poor
- **Collar of Foam (Texture)** Thin
- **Carbonation (Visual)** Slow Rising Bubbles

**Food Pairings**

- **Cheese** English-Style Cheeses
- **Entrée** Roasted Chicken, Fish and Chips
- **Dessert** Maple Bread Pudding

- **Glass** Nonic Pint

- **Hop Aroma/Flavor** Hop flavor is medium to medium-high. Hop bitterness is medium to medium-high

- **Hop Ingredients** Kent Goldings

- **Malt Aroma/Flavor** Residual malt and defining sweetness is medium to medium-high

- **Malt Ingredients** British Pale Ale, Crystal

- **Other ingredients** Some versions use sugar, corn or wheat

- **Palate Body** Moderate

- **Palate Carbonation** Low

- **Palate Length/Finish** Short

- **Temperature** 50-55°F

- **Water** Some versions use medium to high sulfate

- **Yeast**

  - **Type** Ale

  - **Phenols** Not common to style

  - **Esters** Fruity-ester and very low diacetyl flavors are acceptable, but should be minimized in this form of bitter

Source: CraftBeer.com
American Amber Lager

**Style Family: Dark Lagers**

A widely available, sessionable craft beer style that showcases both malt and hops. Amber lagers are a medium-bodied lager with a toasty or caramel-like malt character. Hop bitterness can range from very low to medium-high. Brewers may use decoction mash and dry-hopping to achieve advanced flavors.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
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<tbody>
<tr>
<td>OG</td>
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</tr>
<tr>
<td>FG</td>
<td>1.010 - 1.018</td>
</tr>
<tr>
<td>ABV</td>
<td>4.8% - 5.4%</td>
</tr>
<tr>
<td>IBU</td>
<td>18 - 30</td>
</tr>
<tr>
<td>BU:GU</td>
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<tr>
<td>SRM</td>
<td>6 - 14</td>
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<tr>
<td>CO2 Volumes</td>
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</tr>
<tr>
<td>Apparent Attenuation</td>
<td>68 - 76</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Sam Adams Boston Lager**: Boston Beer Co.
- **Lager**: Brooklyn Brewery
- **Lighter Than I Look**: Figueroa Mountain Brewing

**Style A-Z**

**Alcohol**: Mild to Noticeable

**Brewing/Conditioning Process**: Can use decoction mash and dry-hopping to achieve advanced flavors

**Color**: Gold to Copper

**Clarity**: Clear to Slight Haze

**Country of Origin**: United States

**Collar of Foam (Head Retention)**: Good

**Collar of Foam (Texture)**: Foamy

**Carbonation (Visual)**: Medium to Fast Rising Bubbles

**Food Pairings**

- **Cheese**: White Cheddar
- **Entrée**: Grilled Meats and Vegetables
- **Dessert**: Fruit Desserts

**Glass**: Tulip

**Hop Aroma/Flavor**: Hop flavor and aroma are very low to medium-high. Hop bitterness is very low to medium-high

**Hop Ingredients**: German Noble

**Malt Aroma/Flavor**: Low to medium-low caramel-type or toasted malt aromas are often present

**Malt Ingredients**: Two-row, Munich, Vienna, Caramel

**Palate Body**: Soft

**Palate Carbonation**: Medium to High

**Palate Length/Finish**: Short to Medium

**Temperature**: 45-50°F

**Water**: Varies

**Yeast**

- **Type**: Lager

**Phenols**: Not common to style

**Esters**: Not common to style

source: CraftBeer.com
German-Style Dunkel

Style Family: Dark Lagers
A German-style dunkel, sometimes referred to as a Munchner dunkel, should have chocolate-like, roast malt, bread-like or biscuit-like aromas that come from the use of Munich dark malt. This beer does not offer an overly sweet impression, but rather a mild balance between malt sweetness and hop character.

Quantitative Style Statistics

- **OG**: 1.048 - 1.056
- **FG**: 1.014 - 1.018
- **ABV**: 4.8% - 5.3%
- **IBU**: 16 - 25
- **BU:GU**: 0.33 - 0.45
- **SRM**: 15 - 17
- **CO2 Volumes**: 2 - 2.5
- **Apparent Attenuation**: 68 - 71

U.S. Commercial Examples

- Munich Dunkel: Carver Brewing Co.
- Knight Ryder Munich Dunkel: Equinox Brewing
- Dunkel: Chuckanut Brewery

Style A-Z

- **Alcohol**: Mild to Noticeable
- **Brewing/Conditioning Process**: A decoction mash is commonly used
- **Color**: Light Brown to Dark Brown
- **Clarity**: Clear to Slight Haze
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Mousse-like
- **Carbonation (Visual)**: Medium Rising Bubbles

Food Pairings

- **Cheese**: Washed-Rind Munster
- **Entrée**: Sausages, Roasted Vegetables
- **Dessert**: Candied Ginger Beer Cake

Glass

- **Hop Aroma/Flavor**: Hop aroma and flavor are not perceived. Hop bitterness is low
- **Hop Ingredients**: German Noble
- **Malt Aroma/Flavor**: Malt aroma is low to medium, with chocolate-like, roasted malt, bread-like or biscuit-like notes
- **Malt Ingredients**: Munich, Carafa Special II
- **Palate Body**: Medium-Coating
- **Palate Carbonation**: Medium
- **Palate Length/Finish**: Medium
- **Temperature**: 45-50°F
- **Water**: Moderate carbonate water

Yeast

- **Type**: Lager
- **Phenols**: Not common to style
- **Esters**: Not common to style

source: CraftBeer.com
German-Style Marzen / Oktoberfest

Style Family: Dark Lagers
A beer rich in malt with a balance of clean, hop bitterness. Bread or biscuit-like malt aroma and flavor is common. Originating in Germany, this style used to be seasonally available in the spring (“Marzen” meaning “March”), with the fest-style versions tapped in October.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OG</td>
<td>1.050 - 1.060</td>
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<tr>
<td>FG</td>
<td>1.012 - 1.020</td>
</tr>
<tr>
<td>ABV</td>
<td>5.1% - 6.0%</td>
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<tr>
<td>IBU</td>
<td>18 - 25</td>
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<tr>
<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
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<td>Apparent Attenuation</td>
<td>67 - 76</td>
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U.S. Commercial Examples

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Rhinofest</td>
<td>Lost Rhino Brewing Co.</td>
</tr>
<tr>
<td>Shiner Oktoberfest</td>
<td>Spoetzl Brewery</td>
</tr>
<tr>
<td>Festbier</td>
<td>Victory Brewing Co.</td>
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Style A-Z

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Mild</td>
</tr>
<tr>
<td>Brewing/Conditioning Process</td>
<td>A decoction mash is commonly used</td>
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<tr>
<td>Color</td>
<td>Pale to Reddish Brown</td>
</tr>
<tr>
<td>Clarity</td>
<td>Brilliant</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Germany</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Medium Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Jalapeno Jack</td>
</tr>
<tr>
<td>Entrée</td>
<td>Kielbasa</td>
</tr>
<tr>
<td>Dessert</td>
<td>Coconut Flan</td>
</tr>
<tr>
<td>Glass</td>
<td>Flute</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma and flavor are very low to low. Hop bitterness is medium low to medium</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>German Noble</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Toast</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pilsner, Vienna, Munich</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Soft</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Short to Medium</td>
</tr>
<tr>
<td>Temperature</td>
<td>45-50°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Lager</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Not common to style</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
German-Style Schwarzbier

Style Family: Dark Lagers
Sometimes called black lagers, they may remind some of German-style dunkels, but schwarzbiers are drier, darker and more roast-oriented. These very dark brown to black beers have a surprisingly pale-colored foam head (not excessively brown) with good cling quality. They have a mild roasted malt character without the associated bitterness. Malt flavor and aroma is at low to medium levels of sweetness.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>FG</td>
<td>1.010 - 1.016</td>
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<tr>
<td>ABV</td>
<td>3.8% - 4.9%</td>
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<tr>
<td>IBU</td>
<td>22 - 30</td>
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<tr>
<td>BU:GU</td>
<td>0.50 - 0.58</td>
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<tr>
<td>SRM</td>
<td>25 - 30</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>69 - 77</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

Once You Go Schwarz... Figueroa Mountain Brewing
Black Bavarian Sprecher Brewing Co.
Sam Adams Black Lager Boston Beer

Style A-Z

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Not Detectable to Mild</td>
</tr>
<tr>
<td>Color</td>
<td>Very Dark Brown to Black</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Germany</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Medium to Fast Rising Bubbles</td>
</tr>
<tr>
<td>Glass</td>
<td>Flute</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma and flavor are very low to low, deriving from noble-type hops. Hop bitterness is low to medium</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>German Noble</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Reminiscent of bitter chocolate or coffee. Malt sweetness is low to medium, and incorporates mild roasted malt character without the associated bitterness</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pilsner, Munich, Crystal, Chocolate Malt, Black Roasted Barley, Carafa Special II</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Soft</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Medium</td>
</tr>
<tr>
<td>Temperature</td>
<td>45-50°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Lager</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Not common to style</td>
</tr>
</tbody>
</table>

Food Pairings

Cheese: Munster-Style Cheese
Entrée: Mushroom Strudel
Dessert: Fruit Tart

source: CraftBeer.com
Vienna-Style Lager

**Style Family: Dark Lagers**
Ranges from copper to reddish brown in color. The beer is characterized by malty aroma and slight malt sweetness. The malt aroma and flavor should have a notable degree of toasted and/or slightly roasted malt character. Hop bitterness is low to medium-low.

**Quantitative Style Statistics**

- **OG**: 1.046 - 1.056
- **FG**: 1.012 - 1.018
- **ABV**: 4.8% - 5.4%
- **IBU**: 22 - 28
- **BU:GU**: 0.48 - 0.50
- **SRM**: 12 - 26
- **CO2 Volumes**: 2 - 2.5
- **Apparent Attenuation**: 68 - 74

**U.S. Commercial Examples**

- **Eliot Ness**: Great Lakes Brewing Co.
- **13.FIVE Oifest**: Blue Mountain Barrel House and Organic Brewery
- **Vienna Lager**: Chuckanut Brewery

**Style A-Z**

- **Alcohol**: Mild
- **Color**: Copper to Reddish Brown
- **Clarity**: Brilliant to Clear
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium Rising Bubbles
- **Food Pairings**
  - **Cheese**: Mild Cheeses
  - **Entrée**: Grilled Meats and Vegetables
  - **Dessert**: Almond Biscotti
- **Glass**: Flute
- **Hop Aroma/Flavor**: Hop aroma, flavor and bitterness are very low to low
- **Hop Ingredients**: German Noble
- **Malt Aroma/Flavor**: Aroma should have a notable degree of toasted and/or slightly roasted malt character. Malt flavor is slightly sweet
- **Malt Ingredients**: Vienna
- **Palate Body**: Soft
- **Palate Carbonation**: Medium
- **Palate Length/Finish**: Short to Medium
- **Temperature**: 45-50°F
- **Water**: Hard carbonate water
- **Yeast**
  - **Type**: Lager
- **Phenols**: Not common to style
- **Esters**: Not common to style

source: CraftBeer.com
American Brown Ale

Style Family: Brown Ales
Roasted malt, caramel-like and chocolate-like characters should be of medium intensity in both flavor and aroma. American-style brown ales have evident low to medium hop flavor and aroma and medium to high hop bitterness. The history of this style dates back to U.S. homebrewers who were inspired by English-style brown ales and porters. It sits in flavor between those British styles and is more bitter than both.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
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<td>1.040 - 1.060</td>
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<td>FG</td>
<td>1.010 - 1.018</td>
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<tr>
<td>ABV</td>
<td>4.2% - 6.3%</td>
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<td>SRM</td>
<td>15 - 26</td>
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<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>70 - 75</td>
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</tbody>
</table>

U.S. Commercial Examples

- Brown: Culture Brewing Co.
- Upslope Brown Ale: Upslope Brewing Co.
- Face Down Brown: Telluride Brewing Co.

Style A-Z

<p>| | |</p>
<table>
<thead>
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<td>Alcohol</td>
<td>Mild to Noticeable</td>
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<td>Brewing/Conditioning Process</td>
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<tr>
<td>Color</td>
<td>Deep Copper to Very Dark Brown</td>
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<tr>
<td>Clarity</td>
<td>Clear</td>
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<tr>
<td>Country of Origin</td>
<td>United States</td>
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<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor to Moderate</td>
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<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin to Foamy</td>
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<tr>
<td>Carbonation (Visual)</td>
<td>Medium to Fast Rising Bubbles</td>
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<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Aged Gouda</td>
</tr>
<tr>
<td>Entrée</td>
<td>Grilled Meats and Vegetables</td>
</tr>
<tr>
<td>Dessert</td>
<td>Pear Fritters</td>
</tr>
<tr>
<td>Glass</td>
<td>Nonic Pint</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma and flavor are low to medium. Hop bitterness is medium to high</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>U.S., U.K., Noble</td>
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<tr>
<td>Malt Aroma/Flavor</td>
<td>Caramel, Chocolate, Toast</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pale, Crystal, Chocolate, Victory</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Varies</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
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<tr>
<td>Temperature</td>
<td>50-55°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
</tbody>
</table>

Yeast

Type: Ale

Phenols: Not common to style

Esters: Fruity-ester flavors, if present, should be subdued

source: CraftBeer.com
English-Style Brown Ale

Style Family: Brown Ales

English-style brown ales range from dryer (Northern English) to sweeter (Southern English) maltiness. Roast malt tones (chocolate, nutty) may sometimes contribute to the flavor and aroma profile. Hop bitterness is very low to low, with very little hop flavor and aroma. Known for rich and advanced malt aroma and flavor without centering too much on hops, this style is extremely sessionable and food-friendly.

Quantitative Style Statistics

<table>
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<tr>
<th>Style</th>
<th>Range</th>
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<tbody>
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<td>FG</td>
<td>1.008 - 1.014</td>
</tr>
<tr>
<td>ABV</td>
<td>4.2% - 6.0%</td>
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<tr>
<td>IBU</td>
<td>15 - 25</td>
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<td>BU:GU</td>
<td>0.38 - 0.50</td>
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<td>SRM</td>
<td>12 - 17</td>
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<tr>
<td>CO2 Volumes</td>
<td>1 - 1.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>72 - 80</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Bandit Brown**: City Star Brewing
- **Nautical Nut Brown**: AleSmith Brewing Co.
- **Ellie's Brown**: Avery Brewing Co.

Style A-Z

<table>
<thead>
<tr>
<th>Category</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Not Detectable to Mild</td>
</tr>
<tr>
<td>Color</td>
<td>Copper to Very Dark</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
</tbody>
</table>

Food Pairings

- **Cheese**: Aged Gouda
- **Entrée**: Roasted Pork, Steak, Nuts
- **Dessert**: Pear Fritters

Glass

- **Nonic Pint**

Hop Aroma/Flavor

- Hop aroma and flavor is very low. Hop bitterness is very low to low

Hop Ingredients

- Kent Goldings

Malt Aroma/Flavor

- Balance ranges from dry to sweet maltiness. Roast malt tones of toffee, nuts and caramel sometimes contribute to the flavor profile

Malt Ingredients

- Pale Ale, Special Roast, Victory, Crystal, Pale Chocolate

Palate Body

- Soft

Palate Carbonation

- Low to Medium

Palate Length/Finish

- Short to Medium

Temperature

- 50-55°F

Water

- Moderate carbonate water

Yeast

- **Type**: Ale

Phenols

- Not common to style

Esters

- Fruit (varies)

Fermentation Byproducts

- Diacetyl should be very low, if evident

Source: CraftBeer.com
English-Style Mild

Style Family: Brown Ales
Malt and caramel are part of the flavor and aroma profile, while licorice and roast malt tones may sometimes contribute as well. Hop bitterness is very low to low. U.S. brewers are known to make lighter-colored versions as well as the more common “dark mild.” These beers are very low in alcohol, yet often are still medium-bodied due to increased dextrin malts.

Quantitative Style Statistics

- OG: 1.030 - 1.036
- FG: 1.004 - 1.008
- ABV: 3.4% - 4.4%
- IBU: 10 - 24
- BU:GU: 0.33 - 0.67
- SRM: 17 - 34
- CO2 Volumes: 1 - 1.5
- Apparent Attenuation: 78 - 87

U.S. Commercial Examples

- SS Minnow Mild: Dry Dock Brewing Co.
- Bristlecone: Uinta Brewing Co.
- Ghetto Blaster: Motor City Brewing Works

Style A-Z

- Alcohol: Not Detectable
- Color: Reddish Brown to Very Dark
- Clarity: Clear to Slight Haze
- Country of Origin: United Kingdom
- Collar of Foam (Head Retention): Poor
- Collar of Foam (Texture): Thin
- Carbonation (Visual): Slow to Medium Rising Bubbles

Food Pairings

- Cheese: Mild Cheddar
- Entrée: Mushrooms and Wild Game
- Dessert: Dark Fruit Tart

Glass: Nonic Pint

- Hop Aroma/Flavor: Hop flavor is low to very low
- Hop Ingredients: Kent Goldings
- Malt Aroma/Flavor: Caramel, Chocolate, Coffee, Licorice, Raisin, Molasses. Malt flavors dominate the flavor profile
- Malt Ingredients: British Pale Ale, Crystal, Pale Chocolate, Black Patent
- Other ingredients: Sugar (occasionally)
- Palate Body: Soft to Mouth-Coating
- Palate Carbonation: Low to Medium
- Palate Length/Finish: Short to Medium
- Temperature: 50-55°F
- Water: Varies

- Yeast: Not common to style
- Type: Ale
- Phenols: Not common to style
- Esters: Fruity-ester flavors, if present, are very low to medium-low
- Fermentation Byproducts: Diactyl at low levels is common

source: CraftBeer.com
American IPA

Style Family: India Pale Ales
Characterized by floral, fruity, citrus-like, piney or resinous American-variety hop character, this style is all about hop flavor, aroma and bitterness. This has been the most-entered category at the Great American Beer Festival for more than a decade, and is the top-selling craft beer style in supermarkets and liquor stores across the U.S.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.060 - 1.075</td>
</tr>
<tr>
<td>FG</td>
<td>1.012 - 1.018</td>
</tr>
<tr>
<td>ABV</td>
<td>6.3% - 7.6%</td>
</tr>
<tr>
<td>IBU</td>
<td>50 - 70</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.83 - 0.93</td>
</tr>
<tr>
<td>SRM</td>
<td>6 - 14</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>76 - 80</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Bodhizafa IPA: Georgetown Brewing Co.
- Super Cali IPA: Riip Beer Co.
- Breaking Bud: Knee Deep Brewing Co.

Style A-Z

- Alcohol: Mild to Noticeable
- Brewing/Conditioning Process: Dry-hopping is common
- Color: Gold to Copper, Red/Brown
- Clarity: Clear to Slight Haze
- Country of Origin: United States
- Collar of Foam (Head Retention): Good
- Collar of Foam (Texture): Foamy
- Carbonation (Visual): Medium to Fast Rising Bubbles

Food Pairings

- Cheese: Blue Cheeses
- Entrée: Spicy Tuna Roll
- Dessert: Persimmon Rice Pudding

- Glass: Tulip
- Hop Aroma/Flavor: Hop aroma is high and hop flavor is strong both with floral qualities and citrus-like, piney, resinous or sulfur-like American-variety hop character. Hop bitterness is medium-high to very high
- Hop Ingredients: Centennial, Simcoe, Amarillo
- Malt Aroma/Flavor: Biscuit, Bready, Caramel
- Malt Ingredients: American Two-Row
- Palate Body: Soft to Sticky
- Palate Carbonation: Medium to High
- Palate Length/Finish: Medium to Long
- Temperature: 50-55°F
- Water: High mineral content

Yeast

- Type: Ale

Phenols

- Not common to style

Esters

- Citrus, Tropical Fruit, Pine

source: CraftBeer.com
English-Style IPA

Style Family: India Pale Ales
Steeped in lore (and extra hops), the IPA is a stronger version of a pale ale. Characterized by stiff English-style hop character (earthy, floral) and increased alcohol content. English yeast lends a fruity flavor and aroma. Different from its American counterpart, this style strikes a balance between malt and hops for a more rounded flavor. There is also a lot of mythology surrounding the creation of this style, which is still debated today.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th></th>
<th>1.050 - 1.064</th>
<th>1.012 - 1.018</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.050 - 1.064</td>
<td>1.012 - 1.018</td>
</tr>
<tr>
<td>FG</td>
<td>5.1% - 7.1%</td>
<td>35 - 63</td>
</tr>
<tr>
<td>ABV</td>
<td>SRM</td>
<td>0.70 - 0.98</td>
</tr>
<tr>
<td>IBU</td>
<td>BU:GU</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>Apparent</td>
<td>6 - 14</td>
</tr>
<tr>
<td></td>
<td>Attenuation</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td></td>
<td>72 - 76</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Name</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taproom IPA</td>
<td>Firestone Walker Brewing Co.</td>
</tr>
<tr>
<td>Sam Adams Latitude 48 Hallertau</td>
<td>Boston Beer Co.</td>
</tr>
<tr>
<td>Mittelfrueh</td>
<td>Boston Beer Co.</td>
</tr>
<tr>
<td>East India IPA</td>
<td>Brooklyn Brewery</td>
</tr>
</tbody>
</table>

Style A-Z

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Not Detectable to Noticeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Gold to Copper</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear to Slight Haze</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Medium to Fast Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Aged Cheddar</td>
</tr>
<tr>
<td>Entrée</td>
<td>Fettuccine Alfredo</td>
</tr>
<tr>
<td>Dessert</td>
<td>Ginger Spice Cake</td>
</tr>
<tr>
<td>Glass</td>
<td>Nonic Pint</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma is medium to high, often flowery. Hop flavor and bitterness are medium to high. Earthy and herbal English-variety hop character is perceived, but may be a result of the skillful use of hops of other national origins</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Varies</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Bready, Biscuit, Toast, Caramel, Toffee</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>British Pale Ale, Crystal, Biscuit</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Moderate</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Short to Medium</td>
</tr>
<tr>
<td>Temperature</td>
<td>45-50°F</td>
</tr>
<tr>
<td>Water</td>
<td>High mineral content. May include subtle sulfur content</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Ale</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruity ester aromas are moderate to very strong</td>
</tr>
<tr>
<td>Fermentation Byproducts</td>
<td>Diacetyl can be absent or may be perceived at very low levels</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
Imperial India Pale Ale

Style Family: India Pale Ales
High hop bitterness, flavor and aroma. Hop character is fresh and evident from utilization of any variety of hops. Alcohol content is medium-high to high and notably evident with a medium-high to full body. The intention of this style is to exhibit the fresh and evident character of hops.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.075 - 1.100</td>
</tr>
<tr>
<td>FG</td>
<td>1.012 - 1.020</td>
</tr>
<tr>
<td>ABV</td>
<td>7.6% - 10.6%</td>
</tr>
<tr>
<td>IBU</td>
<td>65 - 100</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.87 - 1.00</td>
</tr>
<tr>
<td>SRM</td>
<td>5 - 16</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>80 - 84</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Hop JuJu** | Fat Heads Brewery
- **2x4** | Melvin Brewing Co.
- **Furious** | Surly Brewing Co.

Style A-Z

- **Alcohol**: Noticeable
- **Brewing/Conditioning Process**: Dry-hopping is common
- **Color**: Gold to Light Brown
- **Clarity**: Clear to Hazy
- **Country of Origin**: United States
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

Food Pairings

- **Cheese**: Rich Cheeses
- **Entrée**: Bone-In Pork Chops, Miso Salmon
- **Dessert**: Carrot Cake

- **Glass**: Tulip
- **Hop Aroma/Flavor**: Hop flavor and aroma are very high, should be fresh and lively and should not be harsh in quality, deriving from any variety of hops. Hop bitterness is very high but not harsh

- **Hop Ingredients**: Varies
- **Malt Aroma/Flavor**: Malt character is medium to high
- **Malt Ingredients**: American Two-Row, Crystal, Malted Wheat
- **Palate Body**: Mouth-Coating
- **Palate Carbonation**: Medium to High
- **Palate Length/Finish**: Long
- **Temperature**: 50-55°F
- **Water**: Varies

- **Yeast**
- **Type**: Ale
- **Phenols**: Not common to style.
- **Esters**: Fruity ester aroma and flavor are high.

source: CraftBeer.com
American-Style Wheat Wine Ale

Style Family: Wheat Beers
Part of the “strong ale” category, this ale is not derived from grapes as its name might suggest. Made with at least 50 percent wheat malt, this full-bodied beer features bready and candy flavors, and finishes with a great deal of malty sweetness. These beers may be oak-aged and sometimes have small amounts of darker malts added.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.088 - 1.120</td>
</tr>
<tr>
<td>FG</td>
<td>1.024 - 1.032</td>
</tr>
<tr>
<td>ABV</td>
<td>8.5% - 12.2%</td>
</tr>
<tr>
<td>IBU</td>
<td>45 - 85</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.51 - 0.71</td>
</tr>
<tr>
<td>SRM</td>
<td>5 - 15</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 73</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Style</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat Wine</td>
<td>Smuttynose Brewing Co.</td>
</tr>
<tr>
<td>Winter Wheat Wine</td>
<td>Rubicon Brewing Co.</td>
</tr>
<tr>
<td>Wheat Wine</td>
<td>The Portsmouth Brewery</td>
</tr>
</tbody>
</table>

Style A-Z

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Noticeable to Harsh</td>
</tr>
<tr>
<td>Color</td>
<td>Gold to Light Brown</td>
</tr>
<tr>
<td>Clarity</td>
<td>Slight Haze</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United States</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin to Interrupted</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
</tbody>
</table>

Food Pairings

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese</td>
<td>Asiago</td>
</tr>
<tr>
<td>Entrée</td>
<td>Smoked Trout</td>
</tr>
<tr>
<td>Dessert</td>
<td>Peach Sorbet</td>
</tr>
</tbody>
</table>

Glass

<table>
<thead>
<tr>
<th>Description</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Snifter</td>
<td></td>
</tr>
</tbody>
</table>

Hop Aroma/Flavor

Hop aroma and flavor are low to medium. Hop bitterness is medium to medium-high.

Hop Ingredients

Varies

Malt Aroma/Flavor

Bready, wheat, honey-like and/or caramel malt aromas are often present.

Malt Ingredients

At least 50 percent Malted Wheat

Palate Body

Mouth-Coating

Palate Carbonation

Low to Medium

Palate Length/Finish

Medium

Temperature

50-55°F

Water

Varies

Yeast

Type

Ale

Phenols

Not common to style

Esters

Fruity-ester aroma is often high and counterbalanced with complex alcohol character

source: CraftBeer.com
# American Wheat

## Style Family: Wheat Beers
Color is pale to light amber. This beer can be made using either ale or lager yeast. Generally brewed with at least 30 percent malted wheat. These beers are typically served with the yeast in the bottle, and pour cloudy. Traditionally more hoppy than a German hefeweizen, American wheat beer differs in that it should not offer flavors of banana or clove. It is a refreshing summer style. Darker versions of this style also exist but are not as common.

## Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.036 - 1.056</td>
</tr>
<tr>
<td>FG</td>
<td>1.004 - 1.018</td>
</tr>
<tr>
<td>ABV</td>
<td>3.5% - 5.6%</td>
</tr>
<tr>
<td>IBU</td>
<td>10 - 35</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.28 - 0.62</td>
</tr>
<tr>
<td>SRM</td>
<td>2 - 10</td>
</tr>
<tr>
<td>CO₂ Volumes</td>
<td>2.5 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>68 - 89</td>
</tr>
</tbody>
</table>

## U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Wheat Beer</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oberon</td>
<td>Bell’s Brewery Inc.</td>
</tr>
<tr>
<td>Tumblewheat</td>
<td>Altitude Chophouse and Brewery</td>
</tr>
</tbody>
</table>

## Style A-Z

### Alcohol
Not Detectable to Mild

### Brewing/Conditioning Process
Brewed with wheat malt

### Color
Straw to Light Amber

### Clarity
Brilliant to Slight Haze

### Country of Origin
United States

### Collar of Foam (Head Retention)
Good

### Collar of Foam (Texture)
Mousse-like

### Carbonation (Visual)
Medium to Fast Rising Bubbles

### Food Pairings

<table>
<thead>
<tr>
<th>Category</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheese</td>
<td>Chèvre</td>
</tr>
<tr>
<td>Entrée</td>
<td>Salads, Seafood</td>
</tr>
<tr>
<td>Dessert</td>
<td>Fruit Desserts</td>
</tr>
</tbody>
</table>

### Glass
Flute

### Hop Aroma/Flavor
Hop aroma, flavor and bitterness are low to medium

### Hop Ingredients
Willamette, Centennial

### Malt Aroma/Flavor
Grainy Wheat

### Malt Ingredients
Malted Wheat, American Two-Row

### Palate Body
Varies

### Palate Carbonation
Medium to High

### Palate Length/Finish
Varies

### Temperature
40-45°F

### Water
Varies

### Yeast

<table>
<thead>
<tr>
<th>Type</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lager or Ale</td>
<td></td>
</tr>
</tbody>
</table>

### Phenols
Can be present

### Esters
Can be present

### Fermentation Byproducts
Very low levels of diacetyl may be acceptable

Source: CraftBeer.com
Belgian-Style Witbier

Style Family: Wheat Beers
Belgian-style wits are brewed using unmalted wheat, sometimes oats and malted barley. Witbiers are spiced with coriander and orange peel. A style that dates back hundreds of years, it fell into relative obscurity until it was revived by Belgian brewer Pierre Celis in the 1960s. This style is currently enjoying a renaissance, especially in the American market. “Wit” means “white.”

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.044 - 1.050</td>
</tr>
<tr>
<td>FG</td>
<td>1.006 - 1.010</td>
</tr>
<tr>
<td>ABV</td>
<td>4.8% - 5.6%</td>
</tr>
<tr>
<td>IBU</td>
<td>10 - 17</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.23 - 0.34</td>
</tr>
<tr>
<td>SRM</td>
<td>2 - 4</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>80 - 86</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Style</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal Wit</td>
<td>Port City Brewing Co.</td>
</tr>
<tr>
<td>Ommegang Witte Ale</td>
<td>Brewery Ommegang</td>
</tr>
<tr>
<td>White</td>
<td>Allagash Brewing Co.</td>
</tr>
</tbody>
</table>

Style A-Z

- **Alcohol**: Not Detectable to Mild
- **Brewing/Conditioning Process**: Often bottle-conditioned
- **Color**: Straw to Pale
- **Clarity**: Hazy
- **Country of Origin**: Belgium
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Mousse-like
- **Carbonation (Visual)**: Fast Rising Bubbles

Food Pairings

- **Cheese**: Mascarpone
- **Entrée**: Moules and Frites
- **Dessert**: Panna Cotta

Glass: Tulip

- **Hop Aroma/Flavor**: Hop flavor and aroma are not perceived to low. Hop bitterness is low, achieved traditionally by the use of noble-type hops
- **Hop Ingredients**: German Noble
- **Malt Aroma/Flavor**: Malt aroma and flavor are very low to low
- **Malt Ingredients**: Pilsner, Flaked Wheat, Unmalted Wheat, and occasionally oats and malted barley
- **Other ingredients**: Orange Peel, Coriander Seed
- **Palate Body**: Drying
- **Palate Carbonation**: High
- **Palate Length/Finish**: Medium
- **Temperature**: 40-45°F
- **Water**: Varies

- **Yeast**: 
- **Type**: Ale
- **Phenols**: Spicy, Pepper
- **Esters**: Orange, Citrus
- **Fermentation Byproducts**: Unfiltered starch and yeast haze should be part of the appearance. Wits are traditionally bottle-conditioned and served cloudy

source: CraftBeer.com
## Berliner-Style Weisse

### Style Family: Wheat Beers
Low in alcohol and refreshingly tart, and often served with a flavored syrup like Woodruff or raspberry, this German-style wheat ale presents a harmony between yeast and lactic acid. These beers are very pale in color, and may be cloudy as they are often unfiltered. Hops are not a feature of this style, but these beers often do showcase esters. Traditional versions often showcase Brettanomyces yeast. Growing in popularity in the U.S., where many brewers are now adding traditional and exotic fruits to the recipe, resulting in flavorful finishes with striking, colorful hues. These beers are incredible when pairing. Bitterness, alcohol and residual sugar are very low, allowing the beer’s acidity, white bread and graham cracker malt flavors to shine. Carbonation is very high, adding to the refreshment factor this style delivers. Many examples of this style contain no hops and thus no bitterness at all.

### Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.028 - 1.032</td>
</tr>
<tr>
<td>FG</td>
<td>1.004 - 1.006</td>
</tr>
<tr>
<td>ABV</td>
<td>2.8% - 3.4%</td>
</tr>
<tr>
<td>IBU</td>
<td>3 - 6</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.11 - 0.19</td>
</tr>
<tr>
<td>SRM</td>
<td>2 - 4</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>3.5 - 4</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>81 - 86</td>
</tr>
</tbody>
</table>

### U.S. Commercial Examples

- **Berliner Weisse**
  - Nodding Head Brewery & Restaurant
  - Athena
    - Creature Comforts Brewing Co.
  - Hottenroth Berliner Weisse
    - The Bruery

### Style A-Z

- **Alcohol**: Not Detectable to Mild
- **Brewing/Conditioning Process**: Hops often not boiled and instead added to a decoction mash. Acidity may be introduced from a sour mash, lactic acid additions or acidulated malt
- **Color**: Straw to Pale
- **Clarity**: Clear to Hazy
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Poor
- **Collar of Foam (Texture)**: Foamy to Rocky
- **Carbonation (Visual)**: Slow to Medium Rising Bubbles

#### Food Pairings

- **Cheese**: Havarti
- **Entrée**: Aged Ham on Pretzel Bread
- **Dessert**: Cheesecake with Raspberries

#### Glass

- **Hop Aroma/Flavor**: Hop aroma and flavor are not perceived. Hop bitterness is not perceived to very low
- **Hop Ingredients**: German Noble
- **Malt Aroma/Flavor**: Not Perceived
- **Malt Ingredients**: Pilsner, Malted Wheat
- **Palate Body**: Drying
- **Palate Carbonation**: Low to Medium
- **Palate Length/Finish**: Short to Medium
- **Temperature**: 45-50°F
- **Water**: Varies

- **Yeast**:
- **Type**: Lager or Ale
- **Phenols**: Not common to style
**Esters**  Fruity-ester flavors will be evident

**Microorganisms**  Lactobacillus

source: CraftBeer.com
German-Style Dunkelweizen

Style Family: Wheat Beers
Could be considered a cross between a German-style dunkel and a hefeweizen. Distinguished by its sweet maltiness and chocolate-like character, it can also have banana and clove (and occasionally vanilla or bubblegum) esters from weizen ale yeast.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.048 - 1.056</td>
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<tr>
<td>FG</td>
<td>1.008 - 1.016</td>
</tr>
<tr>
<td>ABV</td>
<td>4.8% - 5.4%</td>
</tr>
<tr>
<td>IBU</td>
<td>10 - 15</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.21 - 0.27</td>
</tr>
<tr>
<td>SRM</td>
<td>10 - 25</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 - 3</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>71 - 83</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Samuel Adams Dunkelweizen: Boston Beer Co.
- Shiner Dunkelweizen: Spoetzl Brewery

Style A-Z

Alcohol: Not Detectable to Mild
Brewing/Conditioning Process: A decoction mash is commonly used
Color: Copper-Brown to Very Dark
Clarity: Slight Haze to Hazy
Country of Origin: Germany
Collar of Foam (Head Retention): Good
Collar of Foam (Texture): Mousse-like
Carbonation (Visual): Slow to Medium Rising Bubbles

Food Pairings
Cheese: Gouda
Entrée: Roasted Chicken
Dessert: Banana Cream Pie

Glass: Vase

Hop Aroma/Flavor: Hop aroma and flavor are not perceived. Hop bitterness is low
Hop Ingredients: German Noble
Malt Aroma/Flavor: Bready or grainy, with a distinct sweet maltiness and a chocolate-like character from roasted malt
Malt Ingredients: At least 50 percent Malted Wheat, plus Munich, Special "B", Crystal, Carafa Special II

Palate Body: Moderate to Mouth-Coating
Palate Carbonation: Low to Medium
Palate Length/Finish: Short to Medium
Temperature: 45-50°F
Water: Varies

Yeast Type: Weizen Ale

Phenols: The phenolic flavors of Dunkel Weissbier should be evident but subdued
Esters: The ester flavors of Dunkel Weissbier should be evident but subdued

source: CraftBeer.com
German-Style Hefeweizens

**Style Family: Wheat Beers**

German-style hefeweizens are straw to amber in color and made with at least 50 percent malted wheat. The aroma and flavor of a weissbier comes largely from the yeast and is decidedly fruity (banana) and phenolic (clove). “Weizen” means “wheat” and “hefe” means “yeast.” There are multiple variations to this style. Filtered versions are known as “Kristal Weizen” and darker versions are referred to as “Dunkels,” with a stronger, bock-like version called “Weizenbock.” This is commonly a very highly carbonated style with a long-lasting collar of foam.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.047 - 1.056</td>
</tr>
<tr>
<td>FG</td>
<td>1.008 - 1.016</td>
</tr>
<tr>
<td>ABV</td>
<td>4.9% - 5.6%</td>
</tr>
<tr>
<td>IBU</td>
<td>10 - 15</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.21 - 0.27</td>
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<tr>
<td>SRM</td>
<td>3 - 9</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 - 3</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>71 - 83</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Dream Weaver Wheat** Troegs Brewing Co.
- **Big Horn Hefeweizen** CB and Potts Restaurant & Brewery
- **Ebel's Weiss** Two Brothers Brewing Co.

**Style A-Z**

- **Alcohol** Mild
- **Brewing/Conditioning Process** A decoction mash is sometimes used
- **Color** Straw to Amber
- **Clarity** Hazy
- **Country of Origin** Germany
- **Collar of Foam (Head Retention)** Good
- **Collar of Foam (Texture)** Mousse-like
- **Carbonation (Visual)** Fast Rising Bubbles
- **Food Pairings**
  - **Cheese** Chèvre
  - **Entrée** Seafood
  - **Dessert** Key Lime Pie
- **Glass** Vase
- **Hop Aroma/Flavor** Hop flavor is not perceived to very low. Hop bitterness is very low
- **Hop Ingredients** German Noble
- **Malt Aroma/Flavor** Malt sweetness is very low to medium-low
- **Malt Ingredients** Pilsner, Malted Wheat
- **Palate Body** Mouth-Coating
- **Palate Carbonation** High
- **Palate Length/Finish** Short
- **Temperature** 40-45°F
- **Water**Varies
- **Yeast**
  - **Type** Weizen Ale
  - **Phenols** Clove
  - **Esters** Banana

Source: CraftBeer.com
American Barley Wine

Style Family: Strong Ales
These ales range from amber to deep red/copper-garnet in color. A caramel and/or toffee aroma and flavor are often part of the malt character along with high residual malty sweetness. Complexity of alcohols is evident. Fruity-ester character is often high. As with many American versions of a style, this barley wine ale is typically more hop-forward and bitter than its U.K. counterpart. Low levels of age-induced oxidation can harmonize with other flavors and enhance the overall experience. Sometimes sold as vintage releases.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Ranges</th>
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<tbody>
<tr>
<td>OG</td>
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<tr>
<td>FG</td>
<td>1.024 - 1.028</td>
</tr>
<tr>
<td>ABV</td>
<td>8.5% - 12.2%</td>
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<tr>
<td>IBU</td>
<td>60 - 100</td>
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<tr>
<td>BU:GU</td>
<td>0.67 - 0.83</td>
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<td>SRM</td>
<td>11 - 18</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 77</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Bigfoot**
  Sierra Nevada Brewing Co.
- **Old Numbskull**
  AleSmith Brewing Co.
- **Barley Wine Ale**
  Dick's Brewing Co.

Style A-Z

- **Alcohol**: Noticeable to Hot
- **Brewing/Conditioning Process**: Dry-hopping and aging are common
- **Color**: Amber to Deep Red or Copper-Garnet
- **Clarity**: Clear to Brilliant
- **Country of Origin**: United States
- **Collar of Foam (Head Retention)**: Poor
- **Collar of Foam (Texture)**: Thin
- **Carbonation (Visual)**: Slow to Medium Rising Bubbles

Food Pairings

- **Cheese**: Strong Blue Cheeses
- **Entrée**: Beef Cheek
- **Dessert**: Rich Desserts

- **Glass**: Snifter

- **Hop Aroma/Flavor**: Hop aroma and flavor are medium to very high. Hop bitterness is high. American-type hops are often used, but not necessary for this style

- **Hop Ingredients**: Magnum, Chinook, Centennial, Amarillo

- **Malt Aroma/Flavor**: Caramel, Toffee, Bready, Sweet

- **Malt Ingredients**: Pale, Crystal, Pale Chocolate, Special "B"

- **Palate Body**: Mouth-Coating to Sticky

- **Palate Carbonation**: Low to Medium

- **Palate Length/Finish**: Medium to Long

- **Temperature**: 50-55°F

- **Water**: Varies

- **Yeast**: Ale

- **Phenols**: Not common to style

- **Esters**: Fruity-ester flavors are often high

- **Fermentation Byproducts**: Very low levels of diacetyl may be acceptable

source: CraftBeer.com
American Imperial Red Ale

Style Family: Strong Ales
The use of American hops in this ale lends to the perception of medium hop bitterness, flavor and aroma. Coupled with a solid malt profile, this should be a beer with balance between hop bitterness and malt sweetness. Some breweries will choose to bottle-condition this style, leading to possible fruity esters and some haze in their appearance. This is another example of modern American brewers taking an established style and boosting the flavor. California brewers are credited with creating this innovative style.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specification</th>
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<tbody>
<tr>
<td>OG</td>
<td>1.080 - 1.100</td>
</tr>
<tr>
<td>FG</td>
<td>1.020 - 1.028</td>
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<tr>
<td>ABV</td>
<td>8%-10.6%</td>
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<tr>
<td>IBU</td>
<td>55 - 85</td>
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<td>BU:GU</td>
<td>0.69 - 0.85</td>
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<td>SRM</td>
<td>10 - 17</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>72 - 75</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Wreak Havoc**: Bootstrap Brewing Co.
- **reDANKulous - Backstage Series**: Raised Grain Brewing Co.
- **Paradocs Red Imperial IPA**: Ninkasi Brewing

Style A-Z

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Mild to Noticeable</td>
</tr>
<tr>
<td>Brewing/Conditioning Process</td>
<td>Dry-hopping is common</td>
</tr>
<tr>
<td>Color</td>
<td>Deep Amber to Dark Copper or Reddish Brown</td>
</tr>
<tr>
<td>Clarity</td>
<td>Slight Haze to Clear. Unfiltered versions: Hazy to Very Cloudy</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United States</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor to Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin to Fluffy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Medium Rising Bubbles</td>
</tr>
</tbody>
</table>

Food Pairings

- **Cheese**: Mozzarella
- **Entrée**: Corned Beef Hash
- **Dessert**: Toffee Pudding

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma, flavor and bitterness are high but balanced, arising from any variety of hops</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Varies</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Medium to high caramel malt character is present</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Varies</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Varies</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Mouth-Coating</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Medium to Long</td>
</tr>
<tr>
<td>Temperature</td>
<td>50-55°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yeast</th>
<th>Type: Ale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Medium.</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
British-Style Barley Wine Ale

Style Family: Strong Ales
A strong ale that leans heavily on malt characteristics for flavor. With a wide color range and typically high in alcohol, this is a style that is often aged and will evolve well over time. As they advance in age, these beers develop oxidative characteristics including honey and toffee flavors and aromas, darker colors, lessened bitterness and more.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.085 - 1.120</td>
</tr>
<tr>
<td>FG</td>
<td>1.024 - 1.028</td>
</tr>
<tr>
<td>ABV</td>
<td>8.5% - 12.0%</td>
</tr>
<tr>
<td>IBU</td>
<td>40 - 60</td>
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<tr>
<td>BU:GU</td>
<td>0.47 - 0.50</td>
</tr>
<tr>
<td>SRM</td>
<td>14 - 22</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>1.5 - 2</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>72 - 77</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Old Numbskull** by AleSmith Brewing Co.
- **Old Stock Ale** by North Coast Brewing Co.
- **Barley Wine Ale** by Dick's Brewing Co.

Style A-Z

- **Alcohol**: Noticeable to Hot
- **Brewing/Conditioning Process**: Aging is common
- **Color**: Tawny Copper to Deep Red or Copper-Garnet
- **Clarity**: Brilliant to Slight Haze
- **Country of Origin**: United Kingdom
- **Collar of Foam (Head Retention)**: Poor
- **Collar of Foam (Texture)**: Thin to Interrupted
- **Carbonation (Visual)**: Slow to Medium Rising Bubbles

Food Pairings
- **Cheese**: English Stilton
- **Entrée**: Moroccan Duck
- **Dessert**: Dark Chocolate

Glass
- Snifter

Hop Aroma/Flavor
- Hop flavor and aroma are very low to medium. Hop bitterness is low to medium. English-type hops are often used, but not necessary for this style

Hop Ingredients
- Kent Goldings, Horizon

Malt Aroma/Flavor
- Nutty, Caramel, Biscuit

Malt Ingredients
- English Pale, CaraMunich, Crystal

Palate Body
- Mouth-Coating

Palate Carbonation
- Low to Medium

Palate Length/Finish
- Varies

Temperature
- 50-55°F

Water
- Varies

Yeast
- Ale

Phenols
- Not common to style

Esters
- Fruity-ester characters are often high and balanced with the high alcohol content

Fermentation Byproducts
- Low levels of diacetyl may be acceptable

source: CraftBeer.com
English-Style Old Ale

Style Family: Strong Ales
A distinctive quality of these ales is that their yeast undergoes an aging process (often for years) in bulk storage or through bottle conditioning, which contributes to a rich, wine-like and often sweet oxidation character. Old ales are copper-red to very dark in color. Complex estery character may emerge.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
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<tbody>
<tr>
<td>OG</td>
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<td>FG</td>
<td>1.041 - 1.030</td>
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<tr>
<td>ABV</td>
<td>6.3% - 9.1%</td>
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<td>IBU</td>
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<td>BU:GU</td>
<td>0.52 - 0.74</td>
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<td>SRM</td>
<td>12 - 30</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>66 - 76</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Irish Walker** | Olde Hickory Brewing
- **Heini's Hooch** | The Church Brew Works
- **Curmudgeon** | Founders Brewing Co.

Style A-Z

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Noticeable to Hot</td>
</tr>
<tr>
<td>Brewing/Conditioning Process</td>
<td>Typically mashed at higher temperatures to reduce attenuation. Wood-aged notes such as vanillin are acceptable.</td>
</tr>
<tr>
<td>Color</td>
<td>Copper-Red to Very Dark</td>
</tr>
<tr>
<td>Clarity</td>
<td>Opaque</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor to Moderate</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin to Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Double Gloucester</td>
</tr>
<tr>
<td>Entrée</td>
<td>Roast Beef and Lamb</td>
</tr>
<tr>
<td>Dessert</td>
<td>Spiced Plum Walnut Tart</td>
</tr>
<tr>
<td>Glass</td>
<td>Snifter</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma and flavor are not perceived to medium. Hop bitterness is minimal but evident.</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Kent Goldings</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>A malty and sometimes caramel-like sweetness may be evident.</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pale, Chocolate, Black Patent</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Molasses, Treacle, Invert Sugar, Dark Sugar</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Moderate to Mouth-Coating</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Long</td>
</tr>
<tr>
<td>Temperature</td>
<td>40-45°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Ale, Brettanomyces possible</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style.</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruit (Varies)</td>
</tr>
<tr>
<td>Microorganisms</td>
<td>Lactobacillus possible. Horsey, goaty, leathery and phenolic character evolved from Brettanomyces organisms and acidity may be present but should be at low levels and balanced with other flavors.</td>
</tr>
</tbody>
</table>
Fermentation Byproducts  Diacetyl is acceptable at very low levels.

source: CraftBeer.com
Belgian-Style Blonde Ale

Style Family: Belgian Styles
Typically easy-drinking, with a low but pleasing hop bitterness. This is a light- to medium-bodied ale, with a low malt aroma that has a spiced and sometimes fruity-ester character. Sugar is sometimes added to lighten the perceived body. This style is medium in sweetness and not as bitter as Belgian-style tripels or golden strong ales. It is usually brilliantly clear. The overall impression is balance between light sweetness, spice and low to medium fruity ester flavors.

Quantitative Style Statistics

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.054 - 1.068</td>
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<td>FG</td>
<td>1.008 - 1.015</td>
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<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
<td>3 - 4</td>
<td></td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>78 - 85</td>
<td></td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Blonde**: Allagash Brewing Co.
- **Tiburon Blonde**: Marin Brewing Co.
- **Solid Gold**: Cannonball Creek Brewing Co.

Style A-Z

- **Alcohol**: Mild to Noticeable
- **Color**: Pale to Light Amber
- **Clarity**: Clear to Brilliant
- **Country of Origin**: Belgium
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

Food Pairings

- **Cheese**: Brie
- **Entrée**: Sweet and Sour Chicken
- **Dessert**: Angel Food Cake

Glass

- **Tulip**

Hop Aroma/Flavor

- Hop flavor and aroma are not perceived to low. Hop bitterness is very low to low

Hop Ingredients

- Hallertau

Malt Aroma/Flavor

- Malt aroma and flavor are low

Malt Ingredients

- Pilsner, Malted Wheat, Aromatic

Other ingredients

- Belgian Candi Sugar (occasionally)

Palate Body

- Soft to Moderate

Palate Carbonation

- Medium to High

Palate Length/Finish

- Short

Temperature

- 45-50°F

Water

- Varies

Yeast

- Type: Ale

Phenols

- Spicy

Esters

- Low to medium fruity-ester aromas may be present and balanced with light malt and spice aromas

source: CraftBeer.com
Belgian-Style Dubbel

Style Family: Belgian Styles
Belgian-style duppels range from brown to very dark in color. They have a malty sweetness and can have cocoa and caramel aromas and flavors. Hop bitterness is medium-low to medium. Yeast-generated fruity esters (especially banana) can be apparent. Often bottle-conditioned, a slight yeast haze and flavor may be evident. “Dubbel” meaning “double,” this beer is still not so big in intensity as to surpass the Belgian-style quadrupel that is often considered its sibling.

Quantitative Style Statistics

- **OG**: 1.060 - 1.075
- **FG**: 1.012 - 1.016
- **ABV**: 6.3% - 7.6%
- **IBU**: 20 - 35
- **BU:GU**: 0.33 - 0.40
- **SRM**: 16 - 36
- **CO2 Volumes**: 3 - 4
- **Apparent Attenuation**: 79 - 80

U.S. Commercial Examples

- **Brother David’s Double**: Anderson Valley Brewing Co.
- **Abbey Dubbel**: Elm City Brewing Co.
- **Double**: Allagash Brewing Co.

Style A-Z

- **Alcohol**: Mild to Noticeable
- **Brewing/Conditioning Process**: Sometimes extended boiling time results in kettle caramelization. Usually bottle conditioned
- **Color**: Brown to Very Dark
- **Clarity**: Clear to Slight Haze
- **Country of Origin**: Belgium
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

Food Pairings

- **Cheese**: Washed-Rind Cheeses
- **Entrée**: Apple-Smoked Sausage
- **Dessert**: Milk Chocolate

Glass

- **Tulip

Hop Aroma/Flavor**: Hop aroma and flavor are not perceived to low. Hop bitterness is medium-low to medium

Hop Ingredients

- **Tettnang

Malt Aroma/Flavor**: Chocolate, Caramel, Toast

Malt Ingredients

- **Pilsner, CaraMunich, Special "B"

Other ingredients

- **Belgian Candi Sugar, Other Sugars

Palate Body

- **Mouth-Coating

Palate Carbonation

- **Medium to High

Palate Length/Finish

- **Medium

Temperature

- **50-55°F

Water

- **Varies

Yeast

- **Ale

Phenols

- **Spicy, Pepper, Rose-like, Perfumy

Esters

- **Fruit (Banana)

Fermentation Byproducts

- Slight yeast haze is often evident when bottle-conditioned

source: CraftBeer.com
Belgian-Style Golden Strong Ale

**Style Family: Belgian Styles**
These beers are fruity, complex and often on the higher end of the ABV spectrum, yet are approachable to many different palates. Look for a characteristic spiciness from Belgian yeast and a highly attenuated dry finish. This style is traditionally drier and lighter in color than a Belgian-style tripel.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>OГ</th>
<th>1.064 - 1.096</th>
</tr>
</thead>
<tbody>
<tr>
<td>FG</td>
<td>1.008 - 1.024</td>
</tr>
<tr>
<td>ABV</td>
<td>7.1% - 11.2%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 50</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.31 - 0.52</td>
</tr>
<tr>
<td>SRM</td>
<td>3.5 - 10</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>4 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>75 - 88</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Pranqster** North Coast Brewing Co.
- **Brooklyn Local 1** Brooklyn Brewery
- **Treachery** 12Degree Brewing

**Style A-Z**

- **Alcohol** Mild
- **Brewing/Conditioning Process** Bottle-conditioned
- **Color** Pale to Copper
- **Clarity** Clear
- **Country of Origin** Belgium
- **Collar of Foam (Head Retention)** Good
- **Collar of Foam (Texture)** Rocky
- **Carbonation (Visual)** Medium to Fast Rising Bubbles

**Food Pairings**
- **Cheese** Triple Creme
- **Entrée** Beer Battered Fried Shrimp
- **Dessert** Baklava
- **Glass** Tulip
- **Hop Aroma/Flavor** Hop aroma and flavor are medium-low to medium-high. Hop bitterness is medium-low to medium-high
- **Hop Ingredients** Czech Saaz
- **Malt Aroma/Flavor** These beers can be malty in overall impression, or dry and highly attenuated
- **Malt Ingredients** Pilsner
- **Other ingredients** Cane Sugar. Herbs and spices are sometimes used to delicately flavor these strong ales
- **Palate Body** Soft
- **Palate Carbonation** Medium to High
- **Palate Length/Finish** Short to Medium
- **Temperature** 40-45°F
- **Water** Varies

**Yeast**

- **Type** Ale
- **Phenols** Spicy, Pepper
- **Esters** Fruit (Pear, Orange, Apple)
- **Fermentation Byproducts** Diacetyl should be very low, if evident

source: CraftBeer.com
Belgian-Style Pale Ale

**Style Family: Belgian Styles**
These pale ales are gold to copper in color and can have caramel or toasted malt flavor. The style is characterized by low but noticeable hop bitterness, flavor and aroma. These beers were inspired by British pale ales. They are very sessionable.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.044 - 1.054</td>
</tr>
<tr>
<td>FG</td>
<td>1.008 - 1.014</td>
</tr>
<tr>
<td>ABV</td>
<td>4.1% - 6.3%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 30</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.45 - 0.56</td>
</tr>
<tr>
<td>SRM</td>
<td>6 - 12</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>74 - 82</td>
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**U.S. Commercial Examples**

<table>
<thead>
<tr>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare Vos</td>
</tr>
<tr>
<td>Saints Devotion</td>
</tr>
<tr>
<td>Perdition</td>
</tr>
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</table>

**Style A-Z**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Not Detectable to Mild</td>
</tr>
<tr>
<td>Color</td>
<td>Gold to Copper</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Belgium</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor to Moderate</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Rocky</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Medium Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Taleggio</td>
</tr>
<tr>
<td>Entrée</td>
<td>Tempura Fried Fish and Chips</td>
</tr>
<tr>
<td>Dessert</td>
<td>Savory Bread Pudding</td>
</tr>
<tr>
<td>Glass</td>
<td>Tulip</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma and flavor are low but noticeable; noble-type hops are commonly used. Hop bitterness is low but noticeable</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Kent Goldings</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Caramel, Toast</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pilsner, CaraMunich, Biscuit</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Belgian Candi Sugar (occasionally)</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Moderate</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Short to Medium</td>
</tr>
<tr>
<td>Temperature</td>
<td>40-50°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Ale</td>
</tr>
<tr>
<td>Phenols</td>
<td>Spicy</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruit (Pear, Orange)</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
Belgian-Style Quadrupel

Style Family: Belgian Styles
These beers are amber to dark brown in color. Caramel, dark sugar and malty sweet flavors dominate, with medium-low to medium-high hop bitterness. Quads have a relatively light body compared to their alcoholic strength. If aged, oxidative qualities should be mild and not distracting. Sometimes referred to as Belgian strong dark.

Quantitative Style Statistics

OG 1.084 - 1.120
FG 1.014 - 1.020
ABV 9.1% - 14.2%
IBU 25 - 50
BU:GU 0.30 - 0.42
SRM 8 - 20
CO2 Volumes 2.5 - 3
Apparent Attenuation 83 - 83

U.S. Commercial Examples

Four Allagash Brewing Co.
The Reverend Avery Brewing Co.
Salvation Russian River Brewing Co.

Style A-Z

Alcohol Noticeable to Hot
Color Amber to Dark Brown
Clarity Slight Haze
Country of Origin Belgium
Collar of Foam (Head Retention) Varies
Collar of Foam (Texture) Mousse-like
Carbonation (Visual) Medium Rising Bubbles

Food Pairings
Cheese Aged Gouda
Entrée Roasted Duck
Dessert Bread Pudding

Glass Tulip
Hop Aroma/Flavor Hop aroma and flavor are not perceived to very low. Hop bitterness is low to medium-low
Hop Ingredients Varies
Malt Aroma/Flavor Caramel, dark sugar and malty sweet flavors and aromas can be intense, not cloying, while complementing fruitiness
Malt Ingredients Varies
Palate Body Mouth-Coating
Palate Carbonation Medium
Palate Length/Finish Medium to Long
Temperature 50-55°F
Water Varies

Yeast
Type Ale
Phenols Clove-like phenolic flavor and aroma should not be evident
Esters Complex fruity flavors reminiscent of raisins, dates, figs, grapes and/or plums emerge, often accompanied with a hint of wine-like character. Perception of alcohol can be extreme
Belgian-Style Saison

**Style Family: Belgian Styles**

Beers in this category are gold to light amber in color. Often bottle-conditioned, with some yeast character and high carbonation. Belgian-style saison may have Brettanomyces or lactic character, and fruity, horsey, goaty and/or leather-like aromas and flavors. Specialty ingredients, including spices, may contribute a unique and signature character. Commonly called “farmhouse ales” and originating as summertime beers in Belgium, these are not just warm-weather treats. U.S. craft brewers brew them year-round and have taken to adding a variety of additional ingredients.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.040 - 1.080</td>
</tr>
<tr>
<td>FG</td>
<td>1.010 - 1.014</td>
</tr>
<tr>
<td>ABV</td>
<td>4.4% - 8.4%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 38</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.50 - 0.50</td>
</tr>
<tr>
<td>SRM</td>
<td>4 - 14</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>3 - 3.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>83 - 75</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Saison</td>
<td>Funkwerks</td>
</tr>
<tr>
<td>Red Barn</td>
<td>The Lost Abbey</td>
</tr>
<tr>
<td>Hennepin</td>
<td>Brewery Ommegang</td>
</tr>
</tbody>
</table>

**Style A-Z**

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Mild to Noticeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brewing/Conditioning Process</td>
<td>Often bottle-conditioned, sometimes dry-hopped and fermented at higher temperatures</td>
</tr>
<tr>
<td>Color</td>
<td>Pale to Light Brown</td>
</tr>
<tr>
<td>Clarity</td>
<td>Slight Haze</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Belgium</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Rocky</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Fast Rising Bubbles</td>
</tr>
</tbody>
</table>

**Food Pairings**

| Cheese | Brie |
| Entrée | Seafood (Mussels) |
| Dessert | Lemon Ginger Sorbet |

| Glass | Tulip |
| Hop Aroma/Flavor | Hop aroma is low to medium. Hop bitterness is medium to medium-high |
| Hop Ingredients | Noble, Styrian, East Kent Goldings |
| Malt Aroma/Flavor | Malt flavor is low but provides foundation for the overall balance |
| Malt Ingredients | Pilsner, Munich, Malted Wheat |
| Other ingredients | Simple Sugar, Honey, Spelt. Specialty ingredients (spices, herbs, flowers, fruits, vegetables, fermentable sugars and carbohydrates, special yeasts of all types, wood aging, etc.) may contribute unique and signature character |

| Palate Body | Soft |
| Palate Carbonation | High |
| Palate Length/Finish | Short to Medium |
| Temperature | 45-55°F |
| Water | High sulfate content |

| Yeast |     |
| Type | Ale, Brettanomyces possible |
| Phenols | Pepper |
| Esters | Fruit (Orange, Lemon) |
**Microorganisms**  Lactobacillus possible

**Fermentation Byproducts**  A small amount of sour or acidic flavor is acceptable when in balance with other components. These beers are often bottle-conditioned, with some yeast character and high carbonation.

Source: CraftBeer.com
Belgian-Style Tripel

Style Family: Belgian Styles
Complex, sometimes mild spicy flavor characterizes this style. Yeast-driven complexity is common. Tripels are often on the higher end of the ABV spectrum, yet are approachable to many different palates. These beers are commonly bottle-conditioned and finish dry. Tripels are similar to Belgian-style golden strong ales, but are generally darker and have a more noticeable malt sweetness.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.070 - 1.092</td>
</tr>
<tr>
<td>FG</td>
<td>1.008 - 1.018</td>
</tr>
<tr>
<td>ABV</td>
<td>7.1% - 10.1%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 45</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.29 - 0.49</td>
</tr>
<tr>
<td>SRM</td>
<td>4 - 9</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>3 - 4</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>80 - 89</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Allagash Tripel**: Allagash Brewing Co.
- **Tripel**: Green Flash Brewing Co.
- **PDA**: Black Bottle Brewery

Style A-Z

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Mild</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Pale to Light Amber</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Belgium</td>
</tr>
</tbody>
</table>

**Collar of Foam (Head Retention)**: Good

**Collar of Foam (Texture)**: Rocky

**Carbonation (Visual)**: Fast Rising Bubbles

**Food Pairings**

- **Cheese**: Triple Creme
- **Entrée**: Roasted Turkey
- **Dessert**: Caramelized Banana Creme Brulee

**Glass**: Tulip

**Hop Aroma/Flavor**: Hop aroma and flavor are not perceived to low. Hop bitterness is medium to medium-high

**Hop Ingredients**: Tetnang, Czech Saaz

**Malt Aroma/Flavor**: Low sweetness from very pale malts is present

**Malt Ingredients**: Belgian Pilsner

**Other ingredients**: Brewing Sugar (occasionally)

**Palete Body**: Soft to Mouth-Coating

**Palete Carbonation**: High

**Palete Length/Finish**: Short to Medium

**Temperature**: 40-45°F

**Water**: Soft Water

**Yeast**

**Type**: Ale

**Phenols**: Complex, sometimes mild spicy flavor. Clove-like phenolic flavor may be evident at very low levels

**Esters**: Fruit (Orange, Banana)

**Fermentation Byproducts**: Traditional tripels are bottle-conditioned and may exhibit slight yeast haze, but the yeast should not be intentionally roused

source: CraftBeer.com
American Cream Ale

Style Family: Hybrid Beers
This is a mild, pale, light-bodied ale, made using a warm fermentation (top or bottom fermenting yeast) and cold lagering. Despite being called an ale, when being judged in competitions it is acceptable for brewers to use lager yeast.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Property</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.044 - 1.052</td>
</tr>
<tr>
<td>FG</td>
<td>1.004 - 1.010</td>
</tr>
<tr>
<td>ABV</td>
<td>4.3% - 5.7%</td>
</tr>
<tr>
<td>IBU</td>
<td>10 - 22</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.23 - 0.42</td>
</tr>
<tr>
<td>SRM</td>
<td>2 - 5</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>81 - 91</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Beer</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Sully</td>
<td>21st Amendment Brewery</td>
</tr>
<tr>
<td>Spotted Cow</td>
<td>New Glarus Brewing Co.</td>
</tr>
<tr>
<td>Broadway Light</td>
<td>Detroit Beer Co.</td>
</tr>
</tbody>
</table>

Style A-Z

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Not Detectable to Mild</td>
</tr>
<tr>
<td>Brewing/Conditioning Process</td>
<td>Sometimes krausened for carbonation</td>
</tr>
<tr>
<td>Color</td>
<td>Straw to Gold</td>
</tr>
<tr>
<td>Clarity</td>
<td>Brilliant</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United States</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Poor to Moderate</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Thin to Interrupted</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Fast Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Monterey Jack</td>
</tr>
<tr>
<td>Entrée</td>
<td>Salads, Mild Shellfish</td>
</tr>
<tr>
<td>Dessert</td>
<td>Lemon Custard Tart</td>
</tr>
<tr>
<td>Glass</td>
<td>Flute</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma is usually absent, and hop flavor is very low to low. Hop bitterness is very low to low</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Liberty</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Grainy</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pilsner</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Simple Sugar, Maize</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Soft</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>High</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Short</td>
</tr>
<tr>
<td>Temperature</td>
<td>40-45°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Lager or Ale</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Fermentation Byproducts</td>
<td>Fermentation-derived sulfur character and/or DMS flavor should be extremely low or absent from this style of beer. Diacetyl flavor should not be perceived.</td>
</tr>
</tbody>
</table>

Source: CraftBeer.com
French-Style Biere de Garde

**Style Family: Hybrid Beers**
The name translates as "beer for keeping." This style is popping up more and more from U.S. producers. Blond, amber and brown versions exist. Bier de garde examples are light amber to chestnut brown or red in color. This style is characterized by a toasted malt aroma and slight malt sweetness. Flavor of alcohol is evident. Often bottle-conditioned, with some yeast character.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.060 - 1.080</td>
</tr>
<tr>
<td>FG</td>
<td>1.012 - 1.024</td>
</tr>
<tr>
<td>ABV</td>
<td>4.4% - 8.0%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 30</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.33 - 0.38</td>
</tr>
<tr>
<td>SRM</td>
<td>7 - 16</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 - 3</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>70 - 80</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Domaine DuPage** Two Brothers Brewing Co.
- **Biere De Garde** Schlafly Beer, The Saint Louis Brewery
- **Avant Garde** The Lost Abbey

**Style A-Z**

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Mild to Noticeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Light Amber to Chestnut Brown or Red</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear to Slight Haze</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>France</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy to Rocky</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Fast Rising Bubbles</td>
</tr>
</tbody>
</table>

**Food Pairings**

- **Cheese** Soft Ripened Cheeses
- **Entrée** Roasted Lamb with Mint
- **Dessert** Pecan Pie
- **Glass** Tulip

**Hop Aroma/Flavor**

Hop aroma and flavor are low to medium, from noble-type hops. Hop bitterness is low to medium

**Hop Ingredients**

- **Fuggle**

**Malt Aroma/Flavor**

- **Toast, Caramel, Toffee**

**Malt Ingredients**

- **CaraVienna, Pilsner, Munich, Black Patent**

**Other ingredients**

- **Sugar (occasionally)**

**Palate Body**

- **Soft to Mouth-Coating**

**Palate Carbonation**

- **High**

**Palate Length/Finish**

- **Short to Medium**

**Temperature**

- **45-55°F**

**Water**

- **Soft Water**

**Yeast**

<table>
<thead>
<tr>
<th>Type</th>
<th>Ale, Brettanomyces possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruity-ester flavors can be low to medium in intensity</td>
</tr>
</tbody>
</table>

**Fermentation Byproducts**

Diacetyl flavor should not be perceived. May have Brettanomyces yeast-derived aromas that are slightly acidic, fruity, horsey, goaty and/or leather-like. Earthy, cellar-like, corky and/or musty aromas are acceptable.

Source: CraftBeer.com
California Common

**Style Family: Hybrid Beers**
This beer style is brewed with lager yeast but fermented at ale fermentation temperatures. There is a noticeable degree of toasted malt and/or caramel-like malt character in flavor and often in aroma. Often referred to as “steam beer” and made famous by San Francisco’s Anchor Brewing Company. Seek out woody and mint flavor from the Northern Brewer hops.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.045 - 1.056</td>
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<tr>
<td>FG</td>
<td>1.010 - 1.018</td>
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<td>ABV</td>
<td>4.6% - 5.7%</td>
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<td>IBU</td>
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<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
<td>2.5 - 3</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>68 - 78</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Anchor Steam**
  - Anchor Brewing Co.
- **2x Steam**
  - Southern Tier Brewing Co.
- **Old Scratch Amber Lager**
  - Flying Dog Brewery

**Style A-Z**

- **Alcohol**: Not Detectable to Mild
- **Brewing/Conditioning Process**: Cool ale fermentation temperatures used to ferment this lager beer
- **Color**: Light Amber to Medium Amber
- **Clarity**: Clear
- **Country of Origin**: United States
- **Collar of Foam (Head Retention)**: Moderate
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

**Food Pairings**

- **Cheese**: Feta
- **Entrée**: Pork Loin
- **Dessert**: Bread Pudding

**Glass**: Nonic Pint

- **Hop Aroma/Flavor**: Hop flavor is low to medium-low and may present as Woody, Rustic, or Minty. Hop bitterness is medium to medium-high
- **Hop Ingredients**: Northern Brewer
- **Malt Aroma/Flavor**: Noticeable caramel-type malt flavor should be present
- **Malt Ingredients**: Pale, Munich, Crystal, Victory, Pale Chocolate
- **Palate Body**: Drying
- **Palate Carbonation**: Medium to High
- **Palate Length/Finish**: Short
- **Temperature**: 50-55°F
- **Water**: Varies

- **Yeast**: Lager
- **Phenols**: Not common to style
- **Esters**: Fruity-ester aromas, if present, should be low to medium-low

source: CraftBeer.com
German-Style Brown/Altbier

Style Family: Hybrid Beers
Originally from the Düsseldorf area of Germany, these ales strike a balance between hop and malt flavors and aromas, but can have low fruity esters and some peppery and floral hop aromas. Before Germany had lager beer, it had ales. Alt, meaning “old,” pays homage to one rebel region in Germany which did not lean into lagering. U.S. producers celebrate the ale revolution beautifully with this top-fermented German beer style.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OG</td>
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<tr>
<td>Apparent Attenuation</td>
<td>73 - 82</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

| Deep Roots | Red Cypress Brewery |
| Little Red Cap | Grimm Brothers Brewhouse |
| Alt | Southampton Public House |

Style A-Z

- **Alcohol**: Not Detectable to Mild
- **Brewing/Conditioning Process**: A decoction mash is sometimes used. Cooler ale fermentation and lagering is common
- **Color**: Copper to Dark Brown
- **Clarity**: Brilliant
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Mousse-like
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles
- **Food Pairings**
  - **Cheese**: Emmental
  - **Entrée**: Grilled Salmon
  - **Dessert**: Apple Pie
- **Glass**: Tulip
- **Hop Aroma/Flavor**: Hop flavor is low to medium. Hop bitterness is medium to very high (although the 25 to 35 IBU range is more normal for the majority of Altbiers from Düsseldorf)
- **Hop Ingredients**: Spalt, Magnum, Tettnang
- **Malt Aroma/Flavor**: Sweet malt character that may have a rich, biscuity, and/or light caramel flavor
- **Malt Ingredients**: Pilsner, Munich, CaraMunich, Carafa Special II, Aromatic
- **Other ingredients**: Wheat (occasionally)
- **Palate Body**: Soft
- **Palate Carbonation**: Medium to High
- **Palate Length/Finish**: Short
- **Temperature**: 45-50°F
- **Water**: Moderate carbonate water
- **Yeast**
  - **Type**: Ale
  - **Phenols**: Not common to style
  - **Esters**: Fruity-ester flavors, if present, can be low

source: CraftBeer.com
German-Style Kolsch

Style Family: Hybrid Beers
Light in color and malt character, this style's fermentation process yields a light vinous character which is accompanied by a slightly dry, crisp finish. Ale yeast is used for fermentation, though lager yeast is sometimes used in the bottle or final cold-conditioning process.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
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<tbody>
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<td>OG</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
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<tr>
<td>Apparent Attenuation</td>
<td>79 - 86</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Light of Cologne: Ornery Beer Co.
- Capital City Kolsch: Blind Tiger Brewery & Restaurant
- Summer Ale: Alaskan Brewing Co.

Style A-Z

- Alcohol: Not Detectable
- Brewing/ Conditioning Process: Commonly conditioned at colder temperatures (known as 'lagering')
- Color: Straw to Gold
- Clarity: Brilliant
- Country of Origin: Germany
- Collar of Foam (Head Retention): Poor
- Collar of Foam (Texture): Thin
- Carbonation (Visual): Medium to Fast Rising Bubbles

Food Pairings

- Cheese: Nutty Cheeses
- Entrée: Bratwurst
- Dessert: Light Apricot Cake

Glass: Flute
Hop Aroma/ Flavor: Hop flavor is low and, if evident, should express noble hop character. Hop bitterness is medium
Hop Ingredients: German Noble
Malt Aroma/ Flavor: Malt character is a very low to low with a soft sweetness
Malt Ingredients: Pilsner, Vienna
Other ingredients: Wheat (occasionally)
Palate Body: Soft
Palate Carbonation: Medium to High
Palate Length/ Finish: Short
Temperature: 40-45°F
Water: Varies

Yeast: Ale
Phenols: Not common to style
Esters: Light pear, apple or Riesling wine-like fruitiness may be apparent
Fermentation Byproducts: Low-level sulfur notes are acceptable

source: CraftBeer.com
Irish-Style Red

Style Family: Hybrid Beers
This is a balanced beer that uses a moderate amount of kilned malts and roasted barley to give the color for which it’s named. With a medium hop characteristic on the palate, this typically amber-colored beer is brewed as a lager or ale and can have a medium candy-like caramel malt sweetness. This style may contain adjuncts such as corn, rice and sugar, which help dry out the finish and lessen the body. It also often contains roasted barley, lending low roasted notes, darker color and possibly creating a tan collar of foam. With notes of caramel, toffee and sometimes low-level diacetyl (butter), think of this beer style as a cousin to lightly-toasted and buttered bread.

Quantitative Style Statistics

- OG: 1.040 - 1.048
- FG: 1.010 - 1.014
- ABV: 4.1% - 4.6%
- IBU: 20 - 28
- BU:GU: 0.50 - 0.58
- SRM: 11 - 18
- CO2 Volumes: 2 - 2.5
- Apparent Attenuation: 71 - 75

U.S. Commercial Examples

- Irish Red: Glenwood Canyon Brewpub
- Conway’s Irish Ale: Great Lakes Brewing Co.
- Brian Boru Old Irish Ale: Three Floyds Brewing

Style A-Z

- Alcohol: Not Detectable to Mild
- Color: Copper-Red to Reddish Brown
- Clarity: Clear to Hazy
- Country of Origin: Ireland
- Collar of Foam (Head Retention): Poor to Good
- Collar of Foam (Texture): Thin to Interrupted
- Carbonation (Visual): Medium to Fast Rising Bubbles

Food Pairings
- Cheese: Cheddar
- Entrée: Roasted Vegetables
- Dessert: Poached Pears

- Glass: Nonic Pint
- Hop Aroma/Flavor: Hop aroma is not perceived or low. Hop flavor and bitterness are medium
- Hop Ingredients: Kent Goldings
- Malt Aroma/Flavor: Low to medium candy-like caramel malt sweetness is present. May have a subtle degree of roasted barley or roasted malt character and complexity
- Malt Ingredients: Pale, Crystal, Roasted Barley
- Other ingredients: May contain corn, rice or sugar adjuncts
- Palate Body: Soft to Moderate
- Palate Carbonation: Medium to High
- Palate Length/Finish: Short
- Temperature: 45-55°F
- Water: Varies

Yeast
- Type: Lager or Ale

Phenols
- Not common to style

Esters
- Low levels of fruity-ester flavor are acceptable

Fermentation Byproducts
- Diacetyl should be absent or at very low levels

source: CraftBeer.com
American Imperial Porter

**Style Family: Porters**
Definitively American, these porters should have no roasted barley flavors or strong burnt/black malt character. Medium caramel and cocoa-like sweetness is present, with complementing hop character and malt-derived sweetness.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
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</tr>
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<tbody>
<tr>
<td>OG</td>
<td>1.080 - 1.100</td>
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<td>FG</td>
<td>1.020 - 1.030</td>
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<td>SRM</td>
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<tr>
<td>CO2 Volumes</td>
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</tr>
<tr>
<td>Apparent Attenuation</td>
<td>70 - 75</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Gonzo Imperial Porter**  
  Flying Dog Brewery
- **Northstar Imperial Porter**  
  Twisted Pine Brewing Co.

**Style A-Z**

- **Alcohol** Noticeable
- **Color** Black
- **Clarity** Opaque
- **Country of Origin** United States
- **Collar of Foam (Head Retention)** Good
- **Collar of Foam (Texture)** Foamy
- **Carbonation (Visual)** Medium Rising Bubbles

**Food Pairings**

- **Cheese** Smoked Gouda
- **Entrée** Chicken Mole Enchiladas
- **Dessert** Blondie Butterscotch Brownies

- **Glass** Tulip
- **Hop Aroma/Flavor** Hop aroma and flavor are low to medium-high. Hop bitterness is medium-low to medium
- **Hop Ingredients** Varies
- **Malt Aroma/Flavor** No roasted barley or strong burnt/black malt character should be perceived. Medium malt, caramel and cocoa-like sweetness is present
- **Malt Ingredients** Varies
- **Palate Body** Mouth-Coating
- **Palate Carbonation** Medium
- **Palate Length/Finish** Medium to Long
- **Temperature** 50-55°F
- **Water** Varies

- **Yeast**
- **Type** Ale
- **Phenols** Not common to style
- **Esters** Ale-like fruity ester flavors should be evident but not overpowering, complementing hop character and malt-derived sweetness

**Fermentation Byproducts** Diacetyl should be absent

source: CraftBeer.com
Baltic-Style Porter

Style Family: Porters
A smooth, cold-fermented and cold-lagered beer brewed with lager yeast. Because of its alcoholic strength, it may include very low to low complex alcohol flavors and/or lager fruitiness such as berries, grapes and plums (but not banana; ale-like fruitiness from warm-temperature fermentation is not appropriate). This style has the malt flavors of a brown porter and the roast of a schwarzbier, but is bigger in alcohol and body.

Quantitative Style Statistics

<table>
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<td>FG</td>
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<td>BU:GU</td>
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<td>SRM</td>
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<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>76 - 78</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **Black Eagle Baltic Porter**: Black Tooth Brewing Co.
- **Battle Axe Baltic Porter**: Fat Head's Brewery
- **Siberian Silk**: La Cumbre Brewing Co.

Style A-Z

**Alcohol**: Noticeable

**Brewing/Conditioning Process**: Brewed with lager yeast and cold-fermented

**Color**: Very Deep Ruby or Garnet to Black

**Clarity**: Clear to Opaque

**Country of Origin**: United Kingdom

**Collar of Foam (Head Retention)**: Good

**Collar of Foam (Texture)**: Foamy

**Carbonation (Visual)**: Medium Rising Bubbles

**Food Pairings**

- **Cheese**: Aged Gouda
- **Entrée**: Prime Rib
- **Dessert**: Deconstructed S'mores

**Glass**: Tulip

**Hop Aroma/Flavor**: Hop aroma and flavor are very low. Hop bitterness is low to medium-low

**Hop Ingredients**: Varies

**Malt Aroma/Flavor**: Distinctive malt aromas of caramelized sugars, licorice, and chocolate-like notes of roasted malts and dark sugars are present. Roasted dark malts sometimes contribute a coffee-like roasted barley aroma. Low smoky aroma from malt may be evident. Debittered roasted malts are best used for this style

**Malt Ingredients**: Munich, Vienna, Pilsner, Crystal, Special "B", Carafa Special II, Chocolate

**Palate Body**: Mouth-Coating

**Palate Carbonation**: Medium

**Palate Length/Finish**: Medium to Long

**Temperature**: 45-50°F

**Water**: Varies

**Yeast**

- **Type**: Lager

**Phenols**: Not common to style

**Esters**: May include very low to low complex alcohol flavors and/or lager fruitiness such as berries, grapes, plums, but not banana; ale-like fruitiness from warm temperature fermentation is not appropriate
**Fermentation Byproducts**  Diacetyl and DMS flavors should not be apparent  

source: CraftBeer.com
English-Style Brown Porter

**Style Family: Porters**
Brown porters have no roasted barley or strong burnt/black malt character. Low to medium malt sweetness, caramel and chocolate is acceptable. Hop bitterness is medium. Softer, sweeter and more caramel-like than a robust porter, with less alcohol and body. Porters are the precursor style to stouts.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
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<tbody>
<tr>
<td>OG</td>
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<tr>
<td>FG</td>
<td>1.006 - 1.014</td>
</tr>
<tr>
<td>ABV</td>
<td>4.4% - 6.0%</td>
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<tr>
<td>IBU</td>
<td>20 - 30</td>
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<tr>
<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
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<tr>
<td>Apparent Attenuation</td>
<td>72 - 85</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Old Tom Porter** Piney River Brewing Co.
- **Pluff Mud Porter** Holy City Brewing Co.
- **Taddy Porter** Samuel Smith's Brewery

**Style A-Z**

- **Alcohol** Mild
- **Color** Dark Brown (may have red tint) to Very Dark
- **Clarity** Opaque
- **Country of Origin** United Kingdom
- **Collar of Foam (Head Retention)** Moderate
- **Collar of Foam (Texture)** Foamy
- **Carbonation (Visual)** Slow to Fast Rising Bubbles

**Food Pairings**

- **Cheese** Gruyere
- **Entrée** Roasted or Grilled Meats
- **Dessert** Chocolate Peanut Butter Cookies

- **Glass** Nonic Pint
- **Hop Aroma/Flavor** Hop aroma and flavor are not perceived to medium. Hop bitterness is medium
- **Hop Ingredients** Fuggles
- **Malt Aroma/Flavor** Nutty, Chocolate, Caramel, Bready, Toffee
- **Malt Ingredients** British Pale Ale, Brown, Crystal, Chocolate
- **Other ingredients** May contain additional sugar sources
- **Palate Body** Mouth-Coating
- **Palate Carbonation** Low to High
- **Palate Length/Finish** Medium to Long
- **Temperature** 50-55°F
- **Water** Moderate carbonate water

- **Yeast**
- **Type** Ale
- **Phenols** Not common to style
- **Esters** Fruity esters may be present

*source: CraftBeer.com*
Robust Porter

**Style Family: Porters**

Often features more bitter and roasted malt flavor than a brown porter, but not quite as much as a stout. Robust porters have a roast malt flavor, often reminiscent of cocoa, but no roast barley flavor. Their caramel and malty sweetness is in harmony with the sharp bitterness of black malt. Hop bitterness is evident. With U.S. craft brewers doing so much experimentation in beer styles and ingredients, the lines between certain stouts and porters are often blurred. Yet many deliberate examples of these styles do exist. Diacetyl is acceptable at very low levels.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<td>1.008 - 1.016</td>
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<tr>
<td>ABV</td>
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<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 82</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Pig Iron Porter**
  - Iron Hill Brewery & Restaurant
- **Moonlight Porter**
  - Rock Bottom Restaurant & Brewery
- **Black Butte Porter**
  - Deschutes Brewery

**Style A-Z**

- **Alcohol**: Mild
- **Color**: Very Dark to Black
- **Clarity**: Opaque
- **Country of Origin**: United Kingdom
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Slow to Fast Rising Bubbles

**Food Pairings**

- **Cheese**: Gruyere
- **Entrée**: Roasted or Grilled Meats
- **Dessert**: Chocolate Peanut Butter Cookies

- **Glass**: Nonic Pint
- **Hop Aroma/Flavor**: Hop aroma and flavor are very low to medium. Hop bitterness is medium to high
- **Hop Ingredients**: Kent Goldings, Fuggles
- **Malt Aroma/Flavor**: Grainy, Bready, Toffee, Caramel, Chocolate, Coffee. Caramel and other malty sweetness is in harmony with the sharp bitterness of black malt, without a highly burnt/charcoal flavor
- **Malt Ingredients**: Munich, Crystal, Chocolate, Black Patent
- **Other ingredients**: May contain roasted barley
- **Palate Body**: Mouth-Coating
- **Palate Carbonation**: Low to High
- **Palate Length/Finish**: Medium
- **Temperature**: 50-55°F
- **Water**: Varies

- **Yeast**: 
- **Type**: Ale
- **Phenols**: Not common to style
- **Esters**: Fruity esters should be evident, balanced with all other characters
Fermentation Byproducts  Diacetyl is acceptable at very low levels

source: CraftBeer.com
Smoke Porter

Style Family: Porters
Typically the base for this style is a robust porter that is given smoky depth thanks to wood-smoked malt. Traditionally, brewers will cite the specific wood used to smoke the malt, and different woods will lend different flavors to the finished product. Smoke flavors dissipate over time.

Quantitative Style Statistics

<p>| | |</p>
<table>
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<tr>
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<tbody>
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<td>Varies</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>72 - 80</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Smoked Porter: Alaskan Brewing Co.
- Smoked Porter: Stone Brewing Co.
- Smoked Porter: Epic Brewing Co.

Style A-Z

- Alcohol: Varies
- Brewing/Conditioning Process: Use of smoked malts is common
- Color: Dark Brown to Black
- Clarity: Varies
- Country of Origin: Undetermined
- Collar of Foam (Head Retention): Varies
- Collar of Foam (Texture): Varies
- Carbonation (Visual): Varies

- Food Pairings
  - Cheese: Red Dragon Cheddar
  - Entrée: Grilled Sausage
  - Dessert: S’mores

- Glass: Tulip
- Hop Aroma/Flavor: Hop aroma and flavor are not perceived to medium. Hop bitterness is medium to medium-high
- Hop Ingredients: Kent Goldings, Willamette
- Malt Aroma/Flavor: Black malt character can be perceived in some porters, while others may be absent of strong roasted character. Medium to high malt sweetness, caramel and chocolate are acceptable
- Malt Ingredients: Crystal, Chocolate, Black Patent
- Other ingredients: Common woods used by U.S. craft brewers to smoke a variety of malts: Apple, Alder, Beech, Cherry, Hickory, Mesquite, Oak
- Palate Body: Soft
- Palate Carbonation: Low to High
- Palate Length/Finish: Medium to Long
- Temperature: 50-55°F
- Water: Varies

- Yeast
  - Type: Ale
  - Phenols: Not common to style
  - Esters: Fruity-ester aroma is acceptable. A mild to assertive smoke malt aroma will be in balance with other aroma characters

source: CraftBeer.com
American Imperial Stout

Style Family: Stouts
American-style imperial stouts are the strongest in alcohol and body of the stouts. Black in color, these beers typically have an extremely rich malty flavor and aroma with full, sweet malt character. Bitterness can come from roasted malts or hop additions.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.080 - 1.100</td>
</tr>
<tr>
<td>FG</td>
<td>1.020 - 1.030</td>
</tr>
<tr>
<td>ABV</td>
<td>7.0% - 12.0%</td>
</tr>
<tr>
<td>IBU</td>
<td>50 - 80</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.62 - 0.80</td>
</tr>
<tr>
<td>SRM</td>
<td>40+</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>70 - 75</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Beer Name</th>
<th>Brewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gatling Gun Imperial Stout</td>
<td>BNS Brewing &amp; Distilling Co.</td>
</tr>
<tr>
<td>Anastasia Russian Stout</td>
<td>Weasel Boy Brewing Co.</td>
</tr>
<tr>
<td>Iron Triangle Jawbone</td>
<td>Iron Triangle Brewing Co.</td>
</tr>
</tbody>
</table>

Style A-Z

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Noticeable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Clarity</td>
<td>Opaque</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Moderate</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
</tbody>
</table>

Food Pairings

<table>
<thead>
<tr>
<th>Cheese</th>
<th>Aged Cheeses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrée</td>
<td>Foie Gras</td>
</tr>
<tr>
<td>Dessert</td>
<td>Flour-less Chocolate Cake</td>
</tr>
</tbody>
</table>

Glass

<table>
<thead>
<tr>
<th>Hop Aroma/Flavor</th>
<th>Hop aroma and flavor are medium-high to high, with floral, citrus and/or herbal hop aromas. Hop bitterness is medium-high to very high and balanced with the malt character</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hop Ingredients</td>
<td>Horizon, Kent Goldings</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Bittersweet Chocolate, Cocoa, Coffee</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pale, Black Roasted Barley, Special &quot;B&quot;, CaraMunich, Chocolate, Pale Chocolate</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Mouth-Coating</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Long</td>
</tr>
<tr>
<td>Temperature</td>
<td>50°-55°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
</tbody>
</table>

Yeast

<table>
<thead>
<tr>
<th>Type</th>
<th>Ale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruity esters are generally high</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
# American Stout

## Style Family: Stouts

A coffee- and chocolate-forward ale, but with a hop aroma and flavor, often from a citrus-forward variety. American stouts are bold, with a distinctive dry-roasted bitterness in the finish. Fruity esters should be low, but head retention high. The addition of oatmeal is acceptable in this style and lends to the body and head retention.

## Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.050 - 1.075</td>
</tr>
<tr>
<td>FG</td>
<td>1.010 - 1.022</td>
</tr>
<tr>
<td>ABV</td>
<td>5.7% - 8.9%</td>
</tr>
<tr>
<td>IBU</td>
<td>35 - 60</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.70 - 0.80</td>
</tr>
<tr>
<td>SRM</td>
<td>40+</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 - 3</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>71 - 80</td>
</tr>
</tbody>
</table>

## U.S. Commercial Examples

- **Shakespeare Stout**: Rogue Ales
- **Obsidian Stout**: Deschutes Brewery
- **Black Cliffs**: Boise Brewing

## Style A-Z

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Mild to Noticeable</td>
</tr>
<tr>
<td>Brewing/Conditioning Process</td>
<td>Additional ingredients such as coffee, chocolate, vanilla beans, cherries are common, as is oak aging</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear to Opaque</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United States</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
<tr>
<td>Collins of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Sharp Cheddar</td>
</tr>
<tr>
<td>Entrée</td>
<td>Grilled Lamb</td>
</tr>
<tr>
<td>Dessert</td>
<td>Coffee Cake</td>
</tr>
<tr>
<td>Glass</td>
<td>Tulip</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma and flavor are medium to high, often with American citrus-type and/or resiny hop aromas. Hop bitterness is medium to high</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Horizon, Centennial</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Low to medium malt sweetness with low to medium caramel, chocolate, and/or roasted coffee flavor is present, with a distinctive dry-roasted bitterness in the finish. The contribution of roasted barley and roasted malt to astringency is low and not excessive. Slight roasted malt acidity is acceptable</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pale, Black Roasted Barley, Chocolate, Crystal</td>
</tr>
<tr>
<td>Other ingredients</td>
<td>Oats (occasionally)</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Mouth-Coating</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Medium to Long</td>
</tr>
<tr>
<td>Temperature</td>
<td>50-55°F</td>
</tr>
<tr>
<td>Water</td>
<td>Varies</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Ale</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruity-esters flavors are low, if present</td>
</tr>
</tbody>
</table>
English-Style Oatmeal Stout

**Style Family: Stouts**
The addition of oatmeal adds a smooth, rich body to these beers. Oatmeal stouts are dark brown to black in color. Roasted malt character is caramel-like and chocolate-like, and should be smooth and not bitter. Coffee-like roasted barley and malt aromas are prominent. This low- to medium-alcohol style is packed with darker malt flavors and a rich and oily body from oatmeal.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.038 - 1.056</td>
</tr>
<tr>
<td>FG</td>
<td>1.008 - 1.020</td>
</tr>
<tr>
<td>ABV</td>
<td>3.8% - 6.1%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 40</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.53 - 0.71</td>
</tr>
<tr>
<td>SRM</td>
<td>20+</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>64 - 79</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Stagecoach Stout**  
  Figueroa Mountain Brewing Co.
- **Back Road Stout**  
  Millstream Brewing Co.
- **Velvet Merlin**  
  Firestone Walker Brewing Co.

**Style A-Z**

- **Alcohol**: Mild
- **Color**: Dark Brown to Black
- **Clarity**: Opaque
- **Country of Origin**: United Kingdom
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Slow to Medium Rising Bubbles

**Food Pairings**

- **Cheese**: Aged Cheddar
- **Entrée**: Chicken in Mole Sauce
- **Dessert**: Sweet Potato Cheesecake

**Glass**: Nonic Pint

**Hop Aroma/Flavor**: Hop aroma and flavor are optional, but should not overpower the overall balance if present. Hop bitterness is medium

**Hop Ingredients**: Kent Goldings

**Malt Aroma/Flavor**: Coffee-like roasted barley and roasted malt aromas are prominent. Caramel-like and chocolate-like roasted malt aroma should be evident

**Malt Ingredients**: Pale, Flaked Oats, Chocolate, Victory, Crystal, Black Roasted Barley

**Other ingredients**: Oats

**Palate Body**: Mouth-Coating

**Palate Carbonation**: Low to Medium

**Palate Length/Finish**: Medium

**Temperature**: 50-55°F

**Water**: Varies

**Yeast**

- **Type**: Ale

**Phenols**: Not common to style

**Esters**: Fruity ester flavors are very low

**Fermentation Byproducts**: Diacetyl should be absent or at extremely low levels

*source: CraftBeer.com*
English-Style Sweet Stout (Milk Stout)

Style Family: Stouts
Sweet stout, also referred to as cream stout or milk stout, is black in color. Malt sweetness, chocolate and caramel should dominate the flavor profile and contribute to the aroma. It also should have a low to medium-low roasted malt/barley-derived bitterness. Milk sugar (lactose) lends the style more body. This beer does use lactose sugar, so people with an intolerance should probably avoid this style.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.045 - 1.056</td>
</tr>
<tr>
<td>FG</td>
<td>1.012 - 1.020</td>
</tr>
<tr>
<td>ABV</td>
<td>3.2% - 6.3%</td>
</tr>
<tr>
<td>IBU</td>
<td>15 - 25</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.33 - 0.45</td>
</tr>
<tr>
<td>SRM</td>
<td>40+</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>1.5 - 2</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>64 - 73</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Milk Stout</th>
<th>Left Hand Brewing Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Udder Love</td>
<td>Beachwood Brewery &amp; BBQ</td>
</tr>
<tr>
<td>Samuel Adams Cream Stout</td>
<td>Boston Beer Co.</td>
</tr>
</tbody>
</table>

Style A-Z

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Mild</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Clarity</td>
<td>Opaque</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
</tbody>
</table>

Food Pairings

| Cheese              | Buttery Cheddar                                         |
| Entrée              | Mexican Mole, Spicy BBQ                                 |
| Dessert             | Chocolate Cake, Ice Cream                               |
| Glass               | Nonic Pint                                              |

Hop Aroma/Flavor
Hop aroma and flavor are not perceived. Hop bitterness is low to medium-low and serves to balance and suppress some of the sweetness without contributing apparent flavor nor aroma

Hop Ingredients
Kent Goldings

Malt Aroma/Flavor
Malt sweetness, chocolate, and caramel should dominate the flavor profile. Malt bitterness is low to medium-low and derived from roasted malt or barley

Malt Ingredients
British Pale Ale, Black Patent, Pale Chocolate, Crystal

Other ingredients
Lactose

Palate Body
Mouth-Coating

Palate Carbonation
Low to Medium

Palate Length/Finish
Medium

Temperature
50-55°F

Water
High carbonate water

Yeast

<table>
<thead>
<tr>
<th>Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ale</td>
</tr>
</tbody>
</table>

Phenols
Not common to style

Esters
Fruity ester flavors are low, if present

source: CraftBeer.com
Irish-Style Dry Stout

Style Family: Stouts
Dry stouts are black. These beers achieve a dry-roasted character through the use of roasted barley. The emphasis on coffee-like roasted barley and a moderate degree of roasted malt aromas define much of the character. Hop bitterness is medium to medium high. This beer is often dispensed via nitrogen gas taps that lend a smooth, creamy body to the palate.

Quantitative Style Statistics

- **OG**: 1.038 - 1.048
- **FG**: 1.008 - 1.012
- **ABV**: 4.2% - 5.3%
- **IBU**: 30 - 40
- **BU:GU**: 0.79 - 0.83
- **SRM**: 40+
- **CO2 Volumes**: 1 - 1.5
- **Apparent Attenuation**: 75 - 79

U.S. Commercial Examples

- **Blarney Sisters Dry Irish Stout** Third Street Aleworks
- **Seaside Stout** Pizza Port Brewing Co.
- **O.V.L. Stout** Russian River Brewing Co.

Style A-Z

- **Alcohol**: Not Detectable
- **Color**: Black
- **Clarity**: Clear to Opaque
- **Country of Origin**: Ireland
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Slow to Medium Rising Bubbles

Food Pairings

- **Cheese**: Irish Cheddar
- **Entrée**: Seafood (Oysters), Ham
- **Dessert**: Chocolate Desserts

Glass

- **Nonic Pint**

Hop Aroma/Flavor

- Hop aroma and flavor are not perceived to low, from European-type hops.
- Hop bitterness is medium to medium high

Hop Ingredients

- Kent Goldings

Malt Aroma/Flavor

- Dry stouts achieve a dry-roasted character through the use of roasted barley.
- Initial malt and light caramel flavors give way to a distinctive dry-roasted bitterness in the finish. Emphasis of coffee-like roasted barley and a moderate degree of roasted malt flavors define much of the character

Malt Ingredients

- British Pale Ale, Flaked Barley, Black Roasted Barley

Palate Body

- Soft to Mouth-Coating

Palate Carbonation

- Low to Medium

Palate Length/Finish

- Short to Medium

Temperature

- 50-55°F

Water

- Moderate carbonate water

Yeast

- **Type**: Ale

Phenols

- Not common to style.

Esters

- Fruity esters are minimal and overshadowed by malt, high hop bitterness and roasted barley character

Fermentation Byproducts

- Diacetyl should be very low, if evident

source: CraftBeer.com
German-Style Bock

Style Family: Bocks
Traditional bocks are all-malt brews and are high in malt sweetness. Malt character should be a balance of sweetness and toasted or nut-like malt. “Bock” translates as “goat”!

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.066 - 1.074</td>
</tr>
<tr>
<td>FG</td>
<td>1.018 - 1.024</td>
</tr>
<tr>
<td>ABV</td>
<td>6.3% - 7.6%</td>
</tr>
<tr>
<td>IBU</td>
<td>20 - 30</td>
</tr>
<tr>
<td>BU:GU</td>
<td>0.30 - 0.41</td>
</tr>
<tr>
<td>SRM</td>
<td>20 - 30</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>68 - 73</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Style Name</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Troegenator Double Bock</td>
<td>Troegs Brewing Co.</td>
</tr>
<tr>
<td>Butt Head Bock</td>
<td>Tommyknocker Brewery &amp; Pub</td>
</tr>
<tr>
<td>Rockefeller Bock</td>
<td>Great Lakes Brewing Co.</td>
</tr>
</tbody>
</table>

Style A-Z

<table>
<thead>
<tr>
<th>Metric</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>Mild to Noticeable</td>
</tr>
<tr>
<td>Brewing/Conditioning Process</td>
<td>A decoction mash is commonly used</td>
</tr>
<tr>
<td>Color</td>
<td>Dark Brown to Very Dark</td>
</tr>
<tr>
<td>Clarity</td>
<td>Clear</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Germany</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Foamy</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Slow to Medium Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td></td>
</tr>
<tr>
<td>Cheese</td>
<td>Aged Swiss</td>
</tr>
<tr>
<td>Entrée</td>
<td>Grilled Rib-Eye</td>
</tr>
<tr>
<td>Dessert</td>
<td>Chocolate</td>
</tr>
<tr>
<td>Glass</td>
<td>Tulip</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop flavor is low. Hop bitterness is perceived as medium, increasing proportionately with starting gravity</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>German Noble</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>High malt character with aromas of toasted or nut-like malt, but not caramel</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pilsner, Munich, CaraMunich, Meussdoerffer Rost, Melanoidin</td>
</tr>
<tr>
<td>Palate Body</td>
<td>Soft</td>
</tr>
<tr>
<td>Palate Carbonation</td>
<td>Low to Medium</td>
</tr>
<tr>
<td>Palate Length/Finish</td>
<td>Short to Medium</td>
</tr>
<tr>
<td>Temperature</td>
<td>45-50°F</td>
</tr>
<tr>
<td>Water</td>
<td>Moderate carbonate water</td>
</tr>
<tr>
<td>Yeast</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>Lager</td>
</tr>
<tr>
<td>Phenols</td>
<td>Not common to style.</td>
</tr>
<tr>
<td>Esters</td>
<td>Fruity-ester aromas should be minimal, if present</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
German-Style Doppelbock

Style Family: Bocks
“Doppel” meaning “double,” this style is a bigger and stronger version of the lower-gravity German-style bock beers. Originally made by monks in Munich, this style is very food-friendly and rich in mellanoidins reminiscent of toasted bread. Color is copper to dark brown. Malty sweetness is dominant but should not be cloying. Malt character is more reminiscent of fresh and lightly toasted Munich-style malt, more so than caramel or toffee malt. Doppelbocks are full-bodied, and alcoholic strength is on the higher end.

Quantitative Style Statistics

- OG: 1.074 - 1.080
- FG: 1.014 - 1.020
- ABV: 6.6% - 7.9%
- IBU: 17 - 27
- BU:GU: 0.23 - 0.34
- SRM: 12 - 30
- CO₂ Volumes: 2.5 approximately
- Apparent Attenuation: 75 - 81

U.S. Commercial Examples

- Samuel Adams Double Bock: Boston Beer Co.
- Uber Bock: Great Dane Pub & Brewing Co.
- Consecrator: Bell's Brewery, Inc.

Style A-Z

- Alcohol: Mild to Noticeable
- Brewing/Conditioning Process: A decoction mash is commonly used
- Color: Copper to Dark Brown
- Clarity: Clear
- Country of Origin: Germany
- Collar of Foam (Head Retention): Good
- Collar of Foam (Texture): Foamy
- Carbonation (Visual): Slow to Medium Rising Bubbles

Food Pairings

- Cheese: Strong Cheeses
- Entrée: Pork or Ham
- Dessert: German Chocolate Cake

- Glass: Tulip
- Hop Aroma/Flavor: Hop aroma should be absent. Hop flavor and bitterness are low
- Hop Ingredients: German Noble
- Malt Aroma/Flavor: Dominant aromas are reminiscent of fresh and lightly toasted Munich-style malt, more so than caramel or toffee. Some elements of caramel and toffee can be evident in aroma and contribute to complexity, but the predominant malt aroma is an expression of toasted barley

- Malt Ingredients: Pilsner, Munich, Vienna, CaraMunich
- Palate Body: Soft
- Palate Carbonation: Low to Medium
- Palate Length/Finish: Medium
- Temperature: 45-50°F
- Water: Varies

- Yeast

- Type: Lager
- Phenols: Not common to style
- Esters: Prune, Plum, Grape

source: CraftBeer.com
German-Style Maibock

**Style Family: Bocks**
Sometimes also called “heller bock” (meaning “pale bock”), this style is paler in color and more hop-centric than traditional bock beers. A lightly toasted and/or bready malt character is often evident.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.066 - 1.074</td>
</tr>
<tr>
<td>FG</td>
<td>1.012 - 1.020</td>
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<tr>
<td>ABV</td>
<td>6.3% - 8.1%</td>
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<tr>
<td>IBU</td>
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<tr>
<td>BU:GU</td>
<td>0.30 - 0.51</td>
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<tr>
<td>SRM</td>
<td>4 - 9</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>2.5 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 82</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

<table>
<thead>
<tr>
<th>Name</th>
<th>Brewery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elixir Maibock</td>
<td>Abita Brewery</td>
</tr>
<tr>
<td>Maibock</td>
<td>Mad Fox Brewing Co.</td>
</tr>
<tr>
<td>Maibock</td>
<td>Smuttynose Brewing Co.</td>
</tr>
</tbody>
</table>

**Style A-Z**

- **Alcohol**: Mild to Noticeable
- **Brewing/Conditioning Process**: A decoction mash is commonly used
- **Color**: Pale to Light Amber
- **Clarity**: Clear
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

**Food Pairings**
- **Cheese**: Swiss
- **Entrée**: Ham
- **Dessert**: White Chocolate Cheesecake

**Glass**
- **Goblet**

**Hop Aroma/Flavor**
- Hop aroma and flavor are low to medium low, deriving from noble-type hops.
- Hop bitterness is low

**Hop Ingredients**
- German Noble

**Malt Aroma/Flavor**
- A lightly toasted and/or bready malt aroma is often evident. Roasted or heavy toast/caramel malt aromas should be absent

**Malt Ingredients**
- Pilsner, Munich, Vienna

**Palate Body**
- Soft

**Palate Carbonation**
- Medium to High

**Palate Length/Finish**
- Short to Medium

**Temperature**
- 45-55°F

**Water**
- Varies

**Yeast**
- Type: Lager

**Phenols**
- Not common to style

**Esters**
- Fruity-ester flavors may be low, if present

*source: CraftBeer.com*
German-Style Weizenbock

**Style Family: Bocks**

This beer is a wheat version of a German-style bock, or a bigger and beefier dunkelweizen. Malt melanoidins and weizen ale yeast are the star ingredients. If served with yeast, the appearance may appropriately be very cloudy. With flavors of bready malt and dark fruits like plum, raisin, and grape, this style is low on bitterness and high on carbonation. Balanced clove-like phenols and fruity, banana-like esters produce a well-rounded aroma.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OG</td>
<td>1.066 - 1.080</td>
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<td>FG</td>
<td>1.016 - 1.028</td>
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<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
<td>2.5 - 3</td>
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<tr>
<td>Apparent Attenuation</td>
<td>65 - 76</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- Glockenspiel Weizenbock
  - Great Lakes Brewing Co.
- Moonglow
  - Victory Brewing Co.
- Weizenbock
  - AleSmith Brewing Co.

**Style A-Z**

- **Alcohol**: Mild to Noticeable
- **Brewing/Conditioning Process**: A decoction mash is commonly used. Unfiltered and yeasty
- **Color**: Gold to Very Dark
- **Clarity**: Hazy
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Mousse-like
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles
- **Food Pairings**
  - **Cheese**: Manchego
  - **Entrée**: Chicken and Dumplings
  - **Dessert**: Banana Bread
- **Glass**: Tulip
- **Hop Aroma/Flavor**: Hop aroma is not perceived. Hop bitterness is low
- **Hop Ingredients**: German Noble
- **Malt Aroma/Flavor**: Nutmeg, vanilla, caramel, plums, prunes, raisins, grapes and cocoa, with rum and brandy flavors to boot. Medium malty sweetness is present. If dark, a mild roasted malt aroma and flavor should emerge
- **Malt Ingredients**: Malted Wheat, Munich, Special "B", Crystal, Pale Chocolate
- **Palate Body**: Moderate to Mouth-Coating
- **Palate Carbonation**: Medium
- **Palate Length/Finish**: Medium to Long
- **Temperature**: 45-55°F
- **Water**: Varies
- **Yeast**
  - **Type**: Weizen Ale
  - **Phenols**: Clove
  - **Esters**: Fruity-ester and banana-like elements
- **Fermentation Byproducts**: If served with yeast, appearance may appropriately be very cloudy

(source: CraftBeer.com)
Scotch Ale/Wee Heavy

**Style Family: Scottish-Style Ales**
Scotch ales are overwhelmingly malty, with a rich and dominant sweet malt flavor and aroma. A caramel character is often part of the profile. Some examples feature a light smoked peat flavor. This style could be considered the Scottish version of an English-style barley wine. Overly smoked versions would be considered specialty examples.

**Quantitative Style Statistics**

| OG      | 1.072 - 1.085 |
| FG      | 1.016 - 1.028 |
| ABV     | 6.6% - 8.5%   |
| IBU     | 25 - 35       |
| BU:GU   | 0.35 - 0.41   |
| SRM     | 15 - 30       |
| CO2 Volumes | 2 - 2.5 |
| Apparent Attenuation | 67 - 78 |

**U.S. Commercial Examples**
- **Wee Heavy**: Dry Dock Brewing Co.
- **Way Heavy**: Pizza Port Brewing Co.
- **Real Heavy**: Real Ale Brewing Co.

**Style A-Z**
- **Alcohol**: Noticeable to Hot
- **Brewing/Conditioning Process**: Traditionally, cooler ale fermentation temperatures were common
- **Color**: Light Reddish Brown to Very Dark
- **Clarity**: Clear
- **Country of Origin**: Scotland / United Kingdom
- **Collar of Foam (Head Retention)**: Moderate
- **Collar of Foam (Texture)**: Thin
- **Carbonation (Visual)**: Medium Rising Bubbles
- **Food Pairings**
  - **Cheese**: Pungent Cheeses
  - **Entrée**: Variety of Meats and Game
  - **Dessert**: Creamy Desserts with Fruit
- **Glass**: Thistle
- **Hop Aroma/Flavor**: Hop aroma and flavor are not perceived. Hop bitterness is low but perceptible
- **Hop Ingredients**: Kent Goldings
- **Malt Aroma/Flavor**: Dominated by a smooth, balanced sweet maltiness. Will also have a medium degree of malty, caramel-like aroma and flavor
- **Malt Ingredients**: British Pale Ale, Crystal, Honey, Pale Chocolate, Munich and even Roasted Barley
- **Palate Body**: Mouth-Coating
- **Palate Carbonation**: Medium
- **Palate Length/Finish**: Medium
- **Temperature**: 50-55°F
- **Water**: Soft Water (occasionally)
- **Yeast**
  - **Type**: Ale
  - **Phenols**: Not common to style
  - **Esters**: Plums, Raisin, Dried Fruit. A peaty/smoky character may be evident at low levels
  - **Fermentation Byproducts**: Yeast characters such as diacetyl and sulfur are acceptable at very low levels

*source: CraftBeer.com*
Scottish-Style Ale

Style Family: Scottish-Style Ales
Scottish-style ales vary depending on strength and flavor, but in general retain a malt-forward character with some degree of caramel-like malt flavors and a soft and chewy mouthfeel. Some examples feature a light smoked peat flavor. Hops do not play a huge role in this style. The numbers commonly associated with brands of this style (60/70/80 and others) reflect the Scottish tradition of listing the cost, in shillings, of a hogshead (large cask) of beer. Overly smoked versions would be considered specialty examples. Smoke or peat should be restrained.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
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<tbody>
<tr>
<td>OG</td>
<td>1.030 - 1.050</td>
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<tr>
<td>FG</td>
<td>1.006 - 1.018</td>
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<td>2.8% - 5.3%</td>
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<td>BU:GU</td>
<td>0.30 - 0.50</td>
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<td>SRM</td>
<td>6 - 15</td>
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<tr>
<td>CO2 Volumes</td>
<td>1.5 - 2</td>
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<tr>
<td>Apparent Attenuation</td>
<td>64 - 80</td>
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</tbody>
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U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Style</th>
<th>Brewery</th>
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</thead>
<tbody>
<tr>
<td>Scottish Ale</td>
<td>Campbell Brewing Co.</td>
</tr>
<tr>
<td>Wee Heavy</td>
<td>Maui Brewing Co.</td>
</tr>
<tr>
<td>Kilt Lifter</td>
<td>Four Peaks Brewery</td>
</tr>
</tbody>
</table>

Style A-Z

- **Alcohol**: Not Detectable to Mild
- **Brewing/ Conditioning Process**: High-temperature mash is common to emphasize a more dextrinous wort, lending bigger body and mouthfeel and decreasing fermentable sugars. Traditionally, cooler ale fermentation temperatures were common.
- **Color**: Golden to Dark Chestnut or Brown
- **Clarity**: Clear
- **Country of Origin**: Scotland / United Kingdom
- **Collar of Foam (Head Retention)**: Moderate
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Slow to Medium Rising Bubbles
- **Food Pairings**
  - **Cheese**: Pungent Cheeses
  - **Entrée**: Variety of Meats and Game
  - **Dessert**: Creamy Desserts with Fruit
- **Glass**: Thistle
- **Hop Aroma/Flavor**: Hop aroma and flavor are not perceived. Hop bitterness is low.
- **Hop Ingredients**: Kent Goldings
- **Malt Aroma/Flavor**: Caramel, Toffee
- **Malt Ingredients**: British Pale Ale, Crystal, Honey, Pale Chocolate, Munich and even Roasted Barley
- **Other ingredients**: Wheat Malt, Sugar (occasionally)
- **Palate Body**: Soft
- **Palate Carbonation**: Low to Medium
- **Palate Length/Finish**: Short
- **Temperature**: 50-55°F
- **Water**: High carbonate water
- **Yeast**: Ale
- **Phenols**: Peaty, Earthy, Smoky
- **Esters**: Not common to style.
Fermentation Byproducts  Diacetyl and sulfur are acceptable at very low levels.

source: CraftBeer.com
American Brett

**Style Family: Wild/Sour Beers**
These unique beers vary in color and can take on the hues of added fruits or other ingredients. Horsey, goaty, leathery, phenolic and some fruity acidic character derived from Brettanomyces organisms may be evident, but in balance with other components of the beer. Brett beer and sour beer are not synonymous.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Varies</th>
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</thead>
<tbody>
<tr>
<td>OG</td>
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</tr>
<tr>
<td>FG</td>
<td></td>
</tr>
<tr>
<td>ABV</td>
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<td>IBU</td>
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</tr>
<tr>
<td>BU:GU</td>
<td></td>
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<tr>
<td>SRM</td>
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</tr>
<tr>
<td>CO2 Volumes</td>
<td></td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>Varies</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Touch of Brett** Alesong Brewing & Blending
- **Dreamy Thing** Cerebral Brewing
- **Brett Saison** Ardent Craft Ales

**Style A-Z**

| Alcohol                                    | Varies |
| Brewing/Conditioning Process               | Wood vessels may be used during the fermentation and aging process. Blending is also common |
| Color                                      | Varies |
| Clarity                                    | Varies |
| Country of Origin                          | United States |
| Collar of Foam (Head Retention)            | Varies |
| Collar of Foam (Texture)                   | Varies |
| Carbonation (Visual)                       | Varies |

**Food Pairings**

- **Cheese** Earthy Farmhouse Cheeses
- **Entrée** Grilled or Roasted Game
- **Dessert** Fruit-Filled Pastries

**Glass** Tulip

- **Hop Aroma/Flavor** Hop aroma, flavor and bitterness are evident over a full range from low to high
- **Hop Ingredients** Varies
- **Malt Aroma/Flavor** Varies
- **Malt Ingredients** Varies
- **Other ingredients** Fruit (occasionally)
- **Palate Body** Varies
- **Palate Carbonation** Low to High
- **Palate Length/Finish** Varies
- **Temperature** 45-55°F
- **Water** Varies

**Yeast**

- **Type** Brettanomyces, Ale/Lager possible
- **Phenols** Can be present
- **Esters** Can be present
- **Microorganisms** Brettanomyces possible

source: CraftBeer.com
American Sour

**Style Family: Wild/Sour Beers**

The acidity present in these beers is usually in the form of lactic, acetic and other organic acids naturally developed with acidified malt in the mash, or produced during fermentation by the use of various microorganisms. These beers may derive their sour flavor from pure cultured forms of souring agents or from the influence of barrel aging.

**Quantitative Style Statistics**

- OG: Varies
- FG: Varies
- ABV: Varies
- IBU: Varies
- BU:GU: Varies
- SRM: Varies
- CO2 Volumes: Varies
- Apparent Attenuation: Varies

**U.S. Commercial Examples**

- **Ching Ching** Bend Brewing Co.
- **Excommunication, Forte Cerise** Max Lager's Wood-Fired Grill & Brewery
- **Queen of Tarts** Karl Strauss Brewing Co.

**Style A-Z**

- **Alcohol**: Varies
- **Brewing/Conditioning Process**: Wood vessels may be used during the fermentation and aging process, but wood-derived flavors such as vanillin must not be present
- **Color**: Any range of color, and may take on the color of other ingredients
- **Clarity**: Varies
- **Country of Origin**: United States
- **Collar of Foam (Head Retention)**: Varies
- **Collar of Foam (Texture)**: Varies
- **Carbonation (Visual)**: Varies

**Food Pairings**

- **Cheese**: Strongly Flavored Cheeses
- **Entrée**: Varies
- **Dessert**: Creamy Desserts with Fruit

- **Glass**: Goblet
- **Hop Aroma/Flavor**: Hop aroma, flavor and bitterness are evident over a full range from low to high
- **Hop Ingredients**: Varies
- **Malt Aroma/Flavor**: In darker versions, roasted malt, caramel-like and chocolate-like aromas are subtly present
- **Malt Ingredients**: Varies
- **Other ingredients**: Varies
- **Palate Body**: Varies
- **Palate Carbonation**: Low to High
- **Palate Length/Finish**: Varies
- **Temperature**: 40-50°F
- **Water**: Varies

- **Yeast**
  - **Type**: Ale, Brettanomyces possible
  - **Phenols**: Can be present.
  - **Esters**: Moderate to intense, yet balanced, fruity ester aromas are evident
- **Microorganisms**: Lactic acid bacteria (Lactobacillus)
- **Fermentation Byproducts**: Bacteria- and yeast-induced haze are acceptable at any temperature
**Belgian-Style Flanders**

**Style Family: Wild/Sour Beers**

An ale with character and balance, thanks to lactic sourness and acetic acid. Cherry-like flavors are acceptable, as is malt sweetness that can lend bitterness and a cocoa-like character. Oak or other wood-like flavors may be present, even if the beer was not aged in barrels. Overall, the style is characterized by slight to strong lactic sourness, and Flanders “reds” sometimes include a balanced degree of acetic acid. Brettanomyces-produced flavors may be absent or very low. This style is a marvel in flavor complexity, combining malt, yeast, microorganisms, acidity and low astringency from barrel aging.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>OG</td>
<td>1.044 - 1.056</td>
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<tr>
<td>FG</td>
<td>1.008 - 1.016</td>
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<tr>
<td>ABV</td>
<td>4.8% - 6.6%</td>
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<td>IBU</td>
<td>5 - 18</td>
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<tr>
<td>BU:GU</td>
<td>0.11 - 0.32</td>
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<tr>
<td>SRM</td>
<td>12 - 25</td>
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<tr>
<td>CO2 Volumes</td>
<td>2 - 2.5</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>71 - 82</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Enigma** New Glarus Brewing
- **Oud Tart** The Bruery
- **La Folie** New Belgium Brewing Co.

**Style A-Z**

- **Alcohol** Not Detectable to Mild
- **Brewing/Conditioning Process** Blending is common. Oak-like or woody characters may be pleasantly integrated into the overall palate when aged in oak barrels
- **Color** Copper to Very Dark
- **Clarity** Brilliant to Slight Haze
- **Country of Origin** Belgium
- **Collar of Foam (Head Retention)** Good
- **Collar of Foam (Texture)** Foamy
- **Carbonation (Visual)** Medium to Fast Rising Bubbles
- **Food Pairings**
  - **Cheese** Mimolette
  - **Entrée** Beef Carbonnade
  - **Dessert** Pumpkin Pie
- **Glass** Tulip
- **Hop Aroma/Flavor** Hop aroma and flavor are not perceived. Hop bitterness is perceived to be very low to medium-low
- **Hop Ingredients** Kent Goldings
- **Malt Aroma/Flavor** Roasted malt aromas including a cocoa-like character are acceptable at low levels. A very low degree of malt sweetness may be present
- **Malt Ingredients** Vienna, Munich Special “B”, Aromatic
- **Palate Body** Varies
- **Palate Carbonation** Medium to High
- **Palate Length/Finish** Medium to Long
- **Temperature** 45-50°F
- **Water** Varies
- **Yeast**
  - **Type** Brettanomyces
  - **Phenols** Not common to style
  - **Esters** Fruit-ester aromas, which are often cherry-like, are apparent. May also have notes of raisins, plums, figs and prunes
<table>
<thead>
<tr>
<th><strong>Microorganisms</strong></th>
<th>Lactobacillus possible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fermentation Byproducts</strong></td>
<td>Some versions may be more highly carbonated and, when bottle-conditioned, may appear cloudy when served</td>
</tr>
</tbody>
</table>

source: CraftBeer.com
Belgian-Style Fruit Lambic

**Style Family: Wild/Sour Beers**

Often known as cassis, framboise, kriek, or peche, a fruit lambic takes on the color and flavor of the fruit it is brewed with. It can be dry or sweet, clear or cloudy, depending on the ingredients. Notes of Brettanomyces yeast are often present at varied levels. Sourness is an important part of the flavor profile, though sweetness may compromise the intensity. These flavored lambic beers may be very dry or mildly sweet.

**Quantitative Style Statistics**

<p>| | |</p>
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<td>1.008 - 1.016</td>
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<td>ABV</td>
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<tr>
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</tr>
<tr>
<td>BU:GU</td>
<td>0.29 - 0.38</td>
</tr>
<tr>
<td>SRM</td>
<td>Varies</td>
</tr>
<tr>
<td>CO2 Volumes</td>
<td>4 approximately</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>78 - 80</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- Cherry Lambic: Upland Brewing Co.
- Coolship Red: Allagash Brewing Co.
- Hexotic: Two Roads Brewing Co.

**Style A-Z**

<table>
<thead>
<tr>
<th>Alcohol</th>
<th>Varies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brewing/Conditioning Process</td>
<td>Old lambic is blended with newly fermenting young lambic to create this style. Fruit is added as well. These beers are aged in oak</td>
</tr>
<tr>
<td>Color</td>
<td>Hued with color reflecting the choice of fruit</td>
</tr>
<tr>
<td>Clarity</td>
<td>Varies</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Belgium</td>
</tr>
<tr>
<td>Collar of Foam (Head Retention)</td>
<td>Good</td>
</tr>
<tr>
<td>Collar of Foam (Texture)</td>
<td>Rocky to Mousse-like</td>
</tr>
<tr>
<td>Carbonation (Visual)</td>
<td>Fast Rising Bubbles</td>
</tr>
<tr>
<td>Food Pairings</td>
<td>Chèvre, Pineapple Ceviche, Chocolate Creme Caramel</td>
</tr>
<tr>
<td>Glass</td>
<td>Tulip</td>
</tr>
<tr>
<td>Hop Aroma/Flavor</td>
<td>Hop aroma, flavor and bitterness are not perceived to very low, and can include cheesy or floral lavender notes</td>
</tr>
<tr>
<td>Hop Ingredients</td>
<td>Aged, stale hops</td>
</tr>
<tr>
<td>Malt Aroma/Flavor</td>
<td>Sweet malt characters are not perceived</td>
</tr>
<tr>
<td>Malt Ingredients</td>
<td>Pilsner, Flaked Wheat</td>
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<tr>
<td>Other ingredients</td>
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<td>Palate Body</td>
<td>Varies</td>
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<td>Palate Carbonation</td>
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<td>Water</td>
<td>Varies</td>
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<td>Type</td>
<td>Can be present</td>
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<tr>
<td>Phenols</td>
<td>Can be present</td>
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<tr>
<td>Esters</td>
<td>Lactobacillus and Pediococcus</td>
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<tr>
<td>Microorganisms</td>
<td>Cloudiness is acceptable</td>
</tr>
<tr>
<td>Fermentation Byproducts</td>
<td></td>
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</table>
Belgian-Style Lambic/Gueuze

Style Family: Wild/Sour Beers
Naturally and spontaneously fermented beers with high to very high levels of esters, plus bacterial and yeast-derived sourness that sometimes includes acetic flavors. Lambics are not blended, while the gueuze style blends old and new lambics which are re-fermented in the bottle. Historically, they are dry and completely attenuated, exhibiting no residual sweetness either from malt, sugar or artificial sweeteners. Sweet versions may be created through the addition of sugars or artificial sweeteners. Many examples of this style are made to resemble the gueuze lambic beers of the Brussels area, where it originated.

Quantitative Style Statistics

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<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
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<td>OG</td>
<td>1.044 - 1.056</td>
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<td>FG</td>
<td>1.000 - 1.010</td>
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<tr>
<td>ABV</td>
<td>6.3% - 8.9%</td>
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<td>9 - 23</td>
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<td>BU:GU</td>
<td>0.20 - 0.41</td>
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<td>CO2 Volumes</td>
<td>1 - 1.5</td>
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<tr>
<td>Apparent Attenuation</td>
<td>82 - 100</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- **American Blackberry Sour**: New Glarus Brewing
- **Sour Reserve**: Upland Brewing Co.
- **Supplication**: Russian River Brewing Co.

Style A-Z

- **Alcohol**: Not Detectable to Mild
- **Brewing/Conditioning Process**: Old lambic is blended with newly-fermented young lambic. These beers are aged in oak
- **Color**: Gold to Medium Amber
- **Clarity**: Brilliant (but haze may exist from yeast sediment from bottle fermentation)
- **Country of Origin**: Belgium
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Mousse-like
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles
- **Food Pairings**: Mascarpone with Fruit, Shellfish (Mussels), Rich Chocolate Cake
- **Glass**: Tulip
- **Hop Aroma/Flavor**: Hop aroma, flavor and bitterness are not perceived to very low, and can include cheesy or floral lavender notes
- **Hop Ingredients**: Aged, stale hops
- **Malt Aroma/Flavor**: Sweet malt characters are not perceived
- **Malt Ingredients**: Pilsner, Flaked Wheat
- **Other ingredients**: Unmalted Wheat
- **Palate Body**: Drying to Soft
- **Palate Carbonation**: Very Low to High
- **Palate Length/Finish**: Medium
- **Temperature**: 40-50°F
- **Water**: Varies
- **Yeast**: Ale, Brettanomyces possible
- **Esters**: High to very high fruity ester aromas are present
- **Microorganisms**: Lactobacillus and Pediococcus
- **Fermentation Byproducts**: Belgian-Style Lambic/Gueuze

- **Fermentation/Conditioning Process**: Old lambic is blended with newly-fermented young lambic. These beers are aged in oak
- **Color**: Gold to Medium Amber
- **Clarity**: Brilliant (but haze may exist from yeast sediment from bottle fermentation)
- **Country of Origin**: Belgium
- **Collar of Foam (Head Retention)**: Good
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- **Palate Carbonation**: Very Low to High
- **Palate Length/Finish**: Medium
- **Temperature**: 40-50°F
- **Water**: Varies
- **Yeast**: Ale, Brettanomyces possible
- **Esters**: High to very high fruity ester aromas are present
- **Microorganisms**: Lactobacillus and Pediococcus
- **Fermentation Byproducts**: Belgian-Style Lambic/Gueuze
Characteristic horsey, goaty, leathery and phenolic aromas derived from Brettanomyces yeast are often present at moderate levels. 

source: CraftBeer.com
Contemporary Gose

**Style Family: Wild/Sour Beers**

Straw to medium amber, gose is cloudy from suspended yeast. A wide variety of herbal, spice, floral or fruity aromas other than found in traditional Leipzig-Style Gose are present, in harmony with other aromas. Salt (table salt) character is traditional in low amounts, but may vary from absent to present. Body is low to medium-low. Low to medium lactic acid character is evident in all examples as sharp, refreshing sourness.

**Quantitative Style Statistics**

- **OG**: 1.036 - 1.056
- **FG**: 1.008 - 1.012
- **ABV**: 4.4-5.4
- **IBU**: 10 - 15
- **BU:GU**: 0.28 - 0.27
- **SRM**: 3 to 9
- **CO2 Volumes**: 3.3 - 4.5
- **Apparent Attenuation**: 77.78 - 78.5

**U.S. Commercial Examples**

- **Old Pro Gose**
  - Union Craft Brewing
- **The Kimmie, The Yink & The Holy Gose**
  - Anderson Valley Brewing Company
- **Kirsch Gose**
  - Victory Brewing Company

**Style A-Z**

- **Alcohol**: Not Detectable
- **Brewing/Conditioning Process**: May be fermented with pure beer yeast strains, or with yeast mixed with bacteria. Contemporary Gose may be spontaneously fermented and should exhibit complexity of acidic, flavor and aroma contributed by introduction of wild yeast and bacteria into the fermentation
- **Color**: Straw to Light Amber
- **Clarity**: Cloudy/ Hazy
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy to Rocky
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles
  
**Food Pairings**

- **Cheese**: Queso Fresco
- **Entrée**: Watermelon Salad
- **Dessert**: Greek Yogurt Lemon Mousse

- **Glass**: Flute
- **Hop Aroma/Flavor**: None
- **Hop Ingredients**: None
- **Malt Aroma/Flavor**: Grainy
- **Malt Ingredients**: Pilsner and Wheat
- **Other ingredients**: Table Salt, herbs, spices or fruit
- **Palate Body**: Varies
- **Palate Carbonation**: Medium to High
- **Palate Length/Finish**: Medium
- **Temperature**: 40-50°F
- **Water**: Varies

- **Yeast**: Ale
- **Type**: Ale
- **Microorganisms**: Lactobacilus, Brettanomyces
Fermentation Byproducts  Horsey, leathery or earthy flavors contributed by Brettanomyces yeasts may be evident but have a very low profile, as this beer is not excessively aged. Source: CraftBeer.com
American Lager

Style Family: Pilseners and Pale Lagers
American lager has little in the way of hop and malt character. A straw to gold, very clean and crisp, highly carbonated lager.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>OG</td>
<td>1.040 - 1.048</td>
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<tr>
<td>FG</td>
<td>1.006 - 1.014</td>
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<tr>
<td>ABV</td>
<td>4.1%-5.1%</td>
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<td>IBU</td>
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<tr>
<td>BU:GU</td>
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<td>SRM</td>
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<td>CO2 Volumes</td>
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<td>Apparent Attenuation</td>
<td>70.83 - 85.00</td>
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U.S. Commercial Examples

<table>
<thead>
<tr>
<th>#10 American Lager</th>
<th>Brown Truck Brewery</th>
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</thead>
<tbody>
<tr>
<td>Lightner Creek Lager</td>
<td>Carver Brewing Co.</td>
</tr>
<tr>
<td>Luchesa Lager</td>
<td>Oasis Texas Brewing Co.</td>
</tr>
</tbody>
</table>

Style A-Z

| Alcohol    | Mild    |
| Color      | Straw to Gold |
| Clarity    | Brilliant to Clear |
| Country of Origin | United States |
| Collar of Foam (Head Retention) | Poor |
| Collar of Foam (Texture) | Thin |
| Carbonation (Visual) | Medium to Fast Rising Bubbles |
| Food Pairings |
| Cheese | Smear Ripened Cheeses |
| Entrée  | Pho |
| Dessert | Kettle Corn Balls |
| Glass    | Flute |
| Hop Aroma/Flavor | Low |
| Hop Ingredients | Variety of bittering hops may be used |
| Malt Aroma/Flavor | Grainy |
| Malt Ingredients | 2-Row and 6-Row Barley |
| Other ingredients | Corn, Rice and other adjuncts are often used |
| Palate Body | Drying |
| Palate Carbonation | Medium to High |
| Palate Length/Finish | Medium |
| Temperature | 40-45°F |
| Water | |
| Yeast |
| Type  | Lager |
| Esters | Low fruity-ester flavors are acceptable |

source: CraftBeer.com
Bohemian-Style Pilsener

**Style Family: Pilseners and Pale Lagers**

Bohemian-style pilseners have a slightly sweet and evident malt character and a toasted, biscuit-like, bready malt character. Hop bitterness is perceived as medium with a low to medium-low level of noble-type hop aroma and flavor. This style originated in 1842, with “pilsener” originally indicating an appellation in the Czech Republic. Classic examples of this style used to be conditioned in wooden tanks and had a less sharp hop bitterness despite the similar IBU ranges to German-style pilsener. Low-level diacetyl is acceptable. Bohemian-style pilseners are darker in color and bigger in final gravity than their German counterparts.

**Quantitative Style Statistics**

- OG: 1.044 - 1.056
- FG: 1.014 - 1.020
- ABV: 4.1% - 5.1%
- IBU: 30 - 45
- BU:GU: 0.68 - 0.80
- SRM: 3 - 7
- CO2 Volumes: 2 - 2.5
- Apparent Attenuation: 64 - 68

**U.S. Commercial Examples**

- Bohemian Pilsener: Ninkasi Brewing Co.
- Pilsner: McCoy’s Public House
- Bohemian Pilsener: Dock Street Brewing

**Style A-Z**

- **Alcohol**: Not Detectable to Mild
- **Brewing/Conditioning Process**: Decoction mash provides a rich malt character
- **Color**: Straw to Light Amber
- **Clarity**: Clear to Brilliant
- **Country of Origin**: Czech Republic
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium Rising Bubbles

**Food Pairings**

- **Cheese**: Mild White Cheddar
- **Entrée**: Shellfish, Chicken, Salads
- **Dessert**: Shortbread Cookies

**Glass**: Flute

**Hop Aroma/Flavor**: Hop aroma and flavor are low to medium-low, deriving from noble-type hops. Hop bitterness is medium

**Hop Ingredients**: Czech Saaz

**Malt Aroma/Flavor**: Toasted, biscuit-like, and/or bready malt flavors along with low levels of fermented-malt-derived sulfur compounds may be evident

**Malt Ingredients**: Pilsner, CaraPils

**Palate Body**: Soft

**Palate Carbonation**: Medium

**Palate Length/Finish**: Short

**Temperature**: 40-45°F

**Water**: Low mineral content

**Yeast**

- **Type**: Lager
- **Phenols**: Not common to style
- **Esters**: Not common to style

**Fermentation Byproducts**
Low levels of fermentation-derived sulfur compounds may be evident. Very low levels of diacetyl and DMS flavors may be perceived.

source: CraftBeer.com
European-Style Export

**Style Family: Pilseners and Pale Lagers**

Sometimes referred to as a “Dortmunder export,” this beer has the malt-forward flavor and sweetness of a German-style helles, but the bitter base of a German-style pilsener. This lager is all about balance, with medium hop character and firm but low malt sweetness. Look for toasted malt flavors and spicy floral hop aromas.

**Quantitative Style Statistics**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Range</th>
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<tbody>
<tr>
<td>OG</td>
<td>1.048 - 1.056</td>
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<tr>
<td>FG</td>
<td>1.010 - 1.014</td>
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<tr>
<td>ABV</td>
<td>5.1% - 6.1%</td>
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<tr>
<td>IBU</td>
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<tr>
<td>BU:GU</td>
<td>0.48 - 0.52</td>
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<td>3 - 6</td>
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<td>CO2 Volumes</td>
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<tr>
<td>Apparent Attenuation</td>
<td>75 - 79</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Dortmunder Gold Lager**
  - Great Lakes Brewing Co.
- **Dortmunder Mifflin**
  - Emmett's Tavern & Brewing Co.

**Style A-Z**

- **Alcohol**: Not Detectable to Mild
- **Color**: Straw to Deep Golden
- **Clarity**: Clear
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

**Food Pairings**

- **Cheese**: Chèvre
- **Entrée**: Grilled Steak
- **Dessert**: Bread Pudding

**Glass**: Flute

**Hop Aroma/Flavor**: Hop flavor and aroma are very low to low, deriving from noble-type hops. Hop bitterness is medium

**Hop Ingredients**: German Noble

**Malt Aroma/Flavor**: Sweet malt flavor can be low and should not be caramel-like

**Malt Ingredients**: Pilsner, Munich

**Palate Body**: Moderate

**Palate Carbonation**: Medium to High

**Palate Length/Finish**: Short to Medium

**Temperature**: 45-50°F

**Water**: Gypsum, Chalk

**Yeast**

**Type**: Lager

**Phenols**: Not common to style

**Esters**: Not common to style

source: CraftBeer.com
German-Style Helles

Style Family: Pilseners and Pale Lagers
“Helles” means “pale in color,” as these beers are often golden. They are similar in flavor to adjunct-influenced lagers, but possess more advanced pilsner malt flavor and have a touch more sweetness, and are less dry in the finish. A full-bodied lager that puts pilsner malt flavors forward and can be perceived as bready. A slight sweetness permeates with just a hint of hop spiciness. Clean and crisp, this is a refreshing beer with substance. Low levels of yeast-produced sulfur aromas and flavors may be common.

Quantitative Style Statistics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
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<td>CO2 Volumes</td>
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</tr>
<tr>
<td>Apparent Attenuation</td>
<td>76 - 82</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Helles
  - Dry Dock Brewing Co.
- Chuckanut Helles
  - Chuckanut Brewery
- Hell Yes
  - The Austin Beer Garden Brewing Co.

Style A-Z

- Alcohol: Not Detectable to Mild
- Color: Pale to Golden
- Clarity: Clear to Brilliant
- Country of Origin: Germany
- Collar of Foam (Head Retention): Good
- Collar of Foam (Texture): Foamy
- Carbonation (Visual): Medium to Fast Rising Bubbles

Food Pairings
- Cheese: Colby
- Entrée: Samosas
- Dessert: Baklava

Glass: Flute

Hop Aroma/Flavor: Hop aroma is not perceived to low. Hop flavor and bitterness are very low to low, deriving from European noble-type hops

Hop Ingredients: German Noble

Malt Aroma/Flavor: Malt character is sometimes bread-like, yet always reminiscent of freshly and very lightly toasted malted barley

Malt Ingredients: Pilsner, Munich

Palate Body: Moderate

Palate Carbonation: Medium to High

Palate Length/Finish: Short to Medium

Temperature: 45-50°F

Water:Varies

Yeast:

Type: Lager

Phenols: Not common to style.

Esters: Not common to style

source: CraftBeer.com
German-Style Pilsener

**Style Family: Pilseners and Pale Lagers**

A classic German-style pilsener is straw to pale in color. A malty residual sweetness can be perceived in aroma and flavor. Perception of hop bitterness is medium to high. Noble-type hop aroma and flavor are moderate and quite obvious. Distinctly different from Bohemian-style pilsener, this style is lighter in color and body and has a lower perceived hop bitterness.

**Quantitative Style Statistics**

<table>
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<th>Parameter</th>
<th>Value</th>
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<td>CO2 Volumes</td>
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<tr>
<td>Apparent Attenuation</td>
<td>78 - 86</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Pivo Pils**: Firestone Walker Brewing Co.
- **Paintbrush Pilsener**: Snake River Brewing Co.
- **Prima Pils**: Victory Brewing Co.

**Style A-Z**

- **Alcohol**: Not Detectable
- **Color**: Straw to Pale
- **Clarity**: Brilliant
- **Country of Origin**: Germany
- **Collar of Foam (Head Retention)**: Good
- **Collar of Foam (Texture)**: Foamy
- **Carbonation (Visual)**: Medium to Fast Rising Bubbles

**Food Pairings**

- **Cheese**: White Cheddar
- **Entrée**: Shellfish, Chicken, Salads
- **Dessert**: Shortbread Cookies

**Glass**: Flute

**Hop Aroma/Flavor**: Hop flavor is moderate and quite obvious, deriving from late hopping (not dry-hopping) with noble-type hops. Hop bitterness is medium to high

**Hop Ingredients**: German Noble

**Malt Aroma/Flavor**: A sweet, malty residual aroma can be perceived

**Malt Ingredients**: Pilsner

**Palate Body**: Soft

**Palate Carbonation**: Medium to High

**Palate Length/Finish**: Short

**Temperature**: 40-45°F

**Water**: Varies

**Yeast**:

- **Type**: Lager

**Phenols**: Not common to style

**Esters**: Not common to style.

**Fermentation Byproducts**: Very low levels of DMS aroma may be present, usually below most beer drinkers' taste thresholds and not detectable except to the trained or sensitive palate

Source: CraftBeer.com
**American Black Ale**

**Style Family: Specialty Beers**
Characterized by the perception of caramel malt and dark roasted malt flavor and aroma. Hop bitterness is perceived to be medium-high to high. Hop flavor and aroma are medium-high. Fruity, citrus, piney, floral and herbal character from hops of all origins may contribute to the overall experience. This beer is often called a black IPA or Cascadian dark ale.

**Quantitative Style Statistics**

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<td>CO2 Volumes</td>
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</tr>
<tr>
<td>Apparent Attenuation</td>
<td>76 - 79</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Wookey Jack**  
  Firestone Walker Brewing Co.
- **Midnight Moonlight**  
  Fat Head’s Brewery
- **Once You Go**  
  Lynnwood Brewing Concern

**Style A-Z**

- **Alcohol** Mild to Noticeable
- **Color** Very Dark to Black
- **Clarity** Clear to Opaque
- **Country of Origin** United States
- **Collar of Foam (Head Retention)** Good
- **Collar of Foam (Texture)** Foamy
- **Carbonation (Visual)** Medium Rising Bubbles

**Food Pairings**
- **Cheese**  
  Blue Cheeses, Aged Gouda
- **Entrée**  
  Grilled Shrimp and Grits
- **Dessert**  
  Chocolate Truffles

**Glass**  
Tulip

**Hop Aroma/Flavor**  
Hop aroma is medium-high to high, with hops of all origins contributing fruity, floral, herbal or other notes

**Hop Ingredients**  
Varies

**Malt Aroma/Flavor**  
Medium caramel malt and dark roasted malt aromas are evident

**Malt Ingredients**  
Varies

**Palate Body**  
Soft

**Palate Carbonation**  
Medium

**Palate Length/Finish**  
Medium to Long

**Temperature**  
50-55°F

**Water**  
Varies

**Yeast**

**Type** Ale

**Phenols**  
Not common to style

**Esters**  
Can be present

(source: CraftBeer.com)
Barrel-Aged Beer

Style Family: Specialty Beers
A wood- or barrel-aged beer is any lager, ale or hybrid beer, either a traditional style or a unique experimental beer, that has been aged for a period of time in a wooden barrel or in contact with wood. This beer is aged with the intention of imparting the unique character of the wood and/or the flavor of what has previously been in the barrel. Today’s craft brewers are using wood (mostly oak) to influence flavor and aromatics. Beer may be aged in wooden barrels (new or previously used to age wine or spirits), or chips, spirals and cubes may be added to the conditioning tanks that normally house beer. A variety of types of wood are used including oak, apple, alder, hickory and more. The interior of most barrels is charred or toasted to further enhance the flavor of the wood.

Quantitative Style Statistics

- OG Varies
- FG Varies
- ABV Varies
- IBU Varies
- BU:GU Varies
- SRM Varies
- CO2 Volumes Varies
- Apparent Attenuation Varies

U.S. Commercial Examples

- Drama Queen: Denver Beer Co.
- Barrel Aged Sump Coffee Stout: Perennial Beer Co.
- DBA: Firestone Walker Brewing Co.

Style A-Z

- Alcohol Varies
- Brewing/Conditioning Process: Aging in wood barrels necessary
- Color Varies
- Clarity Varies
- Country of Origin: Undetermined
- Collar of Foam (Head Retention): Varies
- Collar of Foam (Texture): Varies
- Carbonation (Visual): Varies

Food Pairings

- Cheese Varies
- Entrée Varies
- Dessert Varies

Glass: Tulip

- Hop Aroma/Flavor Varies
- Hop Ingredients Varies
- Malt Aroma/Flavor Varies
- Malt Ingredients Varies
- Other ingredients: Wood Aging
- Palate Body: Varies
- Palate Carbonation: Low to High
- Palate Length/Finish Varies
- Temperature: 50-55°F
- Water Varies

Yeast

- Type: Lager or Ale. May have Brettanomyces character
- Phenols: Can be present
- Esters: Can be present

source: CraftBeer.com
Chocolate Beer

Style Family: Specialty Beers
This is an ale or lager that benefits from the addition of dark chocolate or cocoa. More common in porters, stouts and brown ales, where the grain bill better complements the confectionery ingredient, it can be added to other styles as well. Overt bitterness is not acceptable in this style. Little hop character is desired and the chocolate flavor does not need to be overwhelming. The style can vary greatly in approach and flavor profile depending on the brewer.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
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<tbody>
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<td>CO2 Volumes</td>
<td>Varies</td>
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<tr>
<td>Apparent Attenuation</td>
<td>73 - 80</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

Chocolate Oak Aged Imperial Yeti  Great Divide Brewing Co.
The Fix  Elysian Brewing
The Ticket Chocolate Beer  ZwanzigZ Brewing

Style A-Z

| Alcohol | Varies |
| Color   | Light Brown to Black |
| Clarity | Brilliant to Opaque |
| Country of Origin | Undetermined |
| Collar of Foam (Head Retention) | Varies |
| Collar of Foam (Texture) | Varies |
| Carbonation (Visual) | Varies |

Food Pairings

| Cheese | Aged Goat Cheeses |
| Entrée | Venison Mole |
| Dessert | Raspberry Torte |

Glass

Snifter

Hop Aroma/Flavor
Hop flavor and aroma are lower than might be expected for the style. Under-hopping allows chocolate to contribute to the flavor profile while not becoming excessively bitter. Hop bitterness is very low to medium-low.

Hop Ingredients
Varies

Malt Aroma/Flavor
Medium-low to medium-high malt sweetness helps accent cocoa flavors and aromas.

Malt Ingredients
Varies

Other ingredients
Chocolate

Palate Body
Varies

Palate Carbonation
Low to High

Palate Length/Finish
Varies

Temperature
50-55°F

Water
Varies

Yeast

Type  Lager or Ale
 Phenols  Can be present.
 Esters  Can be present.

source: CraftBeer.com
Coffee Beer

Style Family: Specialty Beers
As the name suggests, this can be either a lager or ale with coffee added to boost flavor. While stouts and porters are popular base styles for coffee beer, many craft breweries are experimenting with other styles, like cream ales and India pale ales. Brewers may steep the beans in either water or beer to impart java flavor without adding acidity. Barrel-aged or wood-influenced versions may show signs of oxidation, including sherry notes and other advanced flavors.

Quantitative Style Statistics

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
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<td>CO2 Volumes</td>
<td>Varies</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 80</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Panama Joe's Coffee Stout  II Vicino Brewing Co.
- Barrel Aged Sump Coffee Stout  Perennial Artisan Ales
- Gusto Crema  Georgetown Brewing Co.

Style A-Z

- Alcohol  Varies
- Brewing/Conditioning Process  Coffee is used in any of its forms to create a distinct (ranging from subtle to intense) character.
- Color  Pale to Black
- Clarity  Brilliant to Opaque
- Country of Origin  Undetermined
- Collar of Foam (Head Retention)  Varies
- Collar of Foam (Texture)  Varies
- Carbonation (Visual)  Varies

- Food Pairings
  - Cheese  Aged Semi-Hard Cheeses
  - Entrée  Pork Tenderloin
  - Dessert  Vanilla Ice Cream

- Glass  Nonic Pint
- Hop Aroma/Flavor  Hop flavor is reflective of aroma and can be low to high depending on the intent of the underlying style. Hop bitterness is very low to medium-high.
- Hop Ingredients  Varies
- Malt Aroma/Flavor  Medium-low to medium malt sweetness helps accent coffee flavors and aromas.
- Malt Ingredients  Varies
- Other ingredients  Coffee
- Palate Body  Varies
- Palate Carbonation  Low to High
- Palate Length/Finish  Varies
- Temperature  50-55°F
- Water  Varies

- Yeast
  - Type  Lager or Ale
- Phenols  Can be present.
- Esters  Can be present.

source: CraftBeer.com
Fruit and Field Beer

Style Family: Specialty Beers

Fruit beers are made with fruit, or fruit extracts are added during any portion of the brewing process, providing obvious yet harmonious fruit qualities. This idea is expanded to “field beers” that utilize vegetables and herbs.

Quantitative Style Statistics

- OG: 1.030 - 1.110
- FG: 1.006 - 1.030
- ABV: 2.5% - 13.3%
- IBU: 5 - 45
- BU:GU: 0.17 - 0.64
- SRM: 5 - 50
- CO2 Volumes: Varies
- Apparent Attenuation: 73 - 80

U.S. Commercial Examples

- Apricot Cream Ale: Vertigo Brewing
- Ruby Raspberry Wheat: Mad Anthony Brewing Co.
- Elektrik Cukumbah: Trinity Brewing Co.

Style A-Z

- Alcohol: Varies
- Brewing/Conditioning Process: Varies
- Color: Pale to Very Dark
- Clarity: Varies
- Country of Origin: Undetermined
- Collar of Foam (Head Retention): Varies
- Collar of Foam (Texture): Varies
- Carbonation (Visual): Varies

Food Pairings

- Cheese: Creamy Cheeses
- Entrée: Salads
- Dessert: Vanilla Ice Cream

- Glass: Tulip
- Hop Aroma/Flavor: Hop bitterness is very low to medium-high
- Hop Ingredients: Varies
- Malt Aroma/Flavor: Malt sweetness is very low to medium-high
- Malt Ingredients: Varies
- Other ingredients: Fruit, Vegetables
- Palate Body: Varies
- Palate Carbonation: Low to High
- Palate Length/Finish: Varies
- Temperature: Varies
- Water: Varies

- Yeast
- Type: Lager or Ale
- Phenols: Can be present
- Esters: Can be present

source: CraftBeer.com
### Gluten Free

**Style Family: Specialty Beers**

Barley, wheat, oats, rye and spelt commonly contain gluten, so look for other fermentables to be featured in these beers. A beer (lager, ale or other) that is made from fermentable sugars, grains and converted carbohydrates. Ingredients do not contain gluten.

### Quantitative Style Statistics

<table>
<thead>
<tr>
<th></th>
<th>Varies</th>
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<tbody>
<tr>
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<td>SRM</td>
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<td>CO2 Volumes</td>
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<tr>
<td>Apparent Attenuation</td>
<td>Varies</td>
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### U.S. Commercial Examples

<table>
<thead>
<tr>
<th>Gluten Free</th>
<th>Deschutes Brewing Co.</th>
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</thead>
<tbody>
<tr>
<td><em>Nikki's Gluten Free Honey Pale Ale</em></td>
<td>Rock Bottom Restaurant &amp; Brewery</td>
</tr>
<tr>
<td>Copperhead</td>
<td>Greenview Brewing</td>
</tr>
</tbody>
</table>

### Style A-Z

- **Alcohol**: Varies
- **Brewing/Conditioning Process**: Typically brewed without malt
- **Color**: Varies
- **Clarity**: Varies
- **Country of Origin**: Undetermined
- **Collar of Foam (Head Retention)**: Varies
- **Collar of Foam (Texture)**: Varies
- **Carbonation (Visual)**: Varies
- **Food Pairings**: Varies
- **Cheese**: Varies
- **Entrée**: Varies
- **Dessert**: Varies
- **Glass**: Flute
- **Hop Aroma/Flavor**: Varies
- **Hop Ingredients**: Varies
- **Malt Aroma/Flavor**: Malted barley, wheat and other gluten-rich grains should not be perceived
- **Malt Ingredients**: N/A
- **Other ingredients**: Fermentable sugars, grains and converted carbohydrates that do not contain gluten
- **Palate Body**: Varies
- **Palate Carbonation**: Low to High
- **Palate Length/Finish**: Varies
- **Temperature**: Varies
- **Water**: Varies
- **Yeast**: Lager or Ale
- **Phenols**: Can be present.
- **Esters**: Can be present
- **Microorganisms**: Lactobacillus and Pediococcus

*source: CraftBeer.com*
Herb and Spice Beer

**Style Family: Specialty Beers**
This is a lager or ale that contains flavors derived from flowers, roots, seeds or certain fruits or vegetables. Typically the hop character is low, allowing the added ingredient to shine through. The appearance, mouthfeel and aromas vary depending on the herb or spice used. This beer style encompasses innovative examples as well as traditional holiday and winter ales.

**Quantitative Style Statistics**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>FG</td>
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<td>CO2 Volumes</td>
<td>Varies</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 80</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **NoDajito** NoDa Brewing Co.
- **Midas Touch** Dogfish Head Brewing Co.
- **Good Juju** Left Hand Brewing Co.

**Style A-Z**

- **Alcohol** Varies
- **Color** Any range of color depending on the underlying style
- **Clarity** Varies
- **Country of Origin** Undetermined
- **Collar of Foam (Head Retention)** Varies
- **Collar of Foam (Texture)** Varies
- **Carbonation (Visual)** Varies
- **Food Pairings**
  - **Cheese** Varies
  - **Entrée** Varies
  - **Dessert** Varies
- **Glass** Tulip
- **Hop Aroma/Flavor** Hop aroma is not essential, but may be evident at low levels and should not dominate over the herb or spice character
- **Hop Ingredients** Varies
- **Malt Aroma/Flavor** Varies
- **Malt Ingredients** Varies
- **Other ingredients** Herbs, Spices
- **Palate Body** Varies
- **Palate Carbonation** Low to High
- **Palate Length/Finish** Varies
- **Temperature** 45-55°F
- **Water** Varies
- **Yeast**
  - **Type** Lager or Ale
- **Phenols** Can be present
- **Esters** Can be present.

source: CraftBeer.com
**Honey Beer**

**Style Family: Specialty Beers**
Both lagers and ales can be brewed with honey. Some brewers will choose to experiment with ingredients, while others will add honey to traditional styles. Overall the character of honey should be evident but not totally overwhelming. A wide variety of honey beers are available. U.S. brewers may add honey to the boil kettle (as a sugar source) or post-boil (to preserve more volatile aromatics).

**Quantitative Style Statistics**

| OG  | 1.030 - 1.110 |
| FG  | 1.006 - 1.030 |
| ABV | 2.5% - 12.0%  |
| IBU | 1 - 100      |
| BU:GU | 0.03 - 0.91 |
| SRM | Varies       |
| CO2 Volumes | Varies |
| Apparent Attenuation | 73 - 80 |

**U.S. Commercial Examples**

- **Jetty Cream Ale** Great South Bay Brewery
- **Westbound Braggot** Twisted Pine Brewing Co.
- **Midas Touch** Dogfish Head Craft Brewery

**Style A-Z**

- **Alcohol** Varies
- **Color** Varies
- **Clarity** Varies
- **Country of Origin** Undetermined
- **Collar of Foam (Head Retention)** Varies
- **Collar of Foam (Texture)** Varies
- **Carbonation (Visual)** Varies

**Food Pairings**

- **Cheese** Ricotta
- **Entrée** Bruschetta
- **Dessert** Lemon Basil Gelato

**Glass** Tulip

**Hop Aroma/Flavor** Hop bitterness is very low to very high, and may be used for highlighting desired characteristics.

- **Hop Ingredients** Varies
- **Malt Aroma/Flavor** Varies
- **Malt Ingredients** Varies
- **Other ingredients** Honey
- **Palate Body** Varies
- **Palate Carbonation** Low to High
- **Palate Length/Finish** Varies
- **Temperature** 50-55°F
- **Water** Varies

**Yeast**

- **Type** Lager or Ale
- **Phenols** Can be present.
- **Esters** Can be present.

source: CraftBeer.com
Pumpkin Beer

**Style Family: Specialty Beers**

One of the most popular seasonal beers, this is a lager or ale that is brewed with fresh or processed pumpkin or winter squash. Since the fruit does not have much of a taste by itself, many craft brewers have taken to adding spices typically found in pumpkin pie, like cinnamon and clove. However, these flavors should not overpower the final product. Pumpkin can be found in everything from stouts to pale ales and pilsners.

**Quantitative Style Statistics**

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<th>Objective</th>
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<td>Varies</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>73 - 80</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Pump Action Imperial Pumpkin Ale** by 4 Noses Brewing Co.
- **Pumking** by Southern Tier Brewing Co.
- **Punkin** by Dogfish Head Craft Brewery

**Style A-Z**

- **Alcohol**: Varies
- **Brewing/Conditioning Process**: Beer brewed with pumpkins (Cucurbito pepo) or winter squash as an adjunct in either the mash, kettle or primary or secondary fermentation, providing obvious (ranging from subtle to intense) yet harmonious qualities
- **Color**: Any range of color depending on the underlying style
- **Clarity**: Varies
- **Country of Origin**: Undetermined
- **Collar of Foam (Head Retention)**: Varies
- **Collar of Foam (Texture)**: Varies
- **Carbonation (Visual)**: Varies
- **Food Pairings**
  - **Cheese**: Camembert
  - **Entrée**: Roasted Turkey
  - **Dessert**: Coffee Ice Cream
- **Glass**: Tulip
- **Hop Aroma/Flavor**: Hop bitterness is low to medium-low
- **Hop Ingredients**: Varies
- **Malt Aroma/Flavor**: Malt sweetness is low to medium-high
- **Malt Ingredients**: Varies
- **Other ingredients**: Pumpkin, Squash
- **Palate Body**: Varies
- **Palate Carbonation**: Low to High
- **Palate Length/Finish**: Varies
- **Temperature**: 50-55°F
- **Water**: Varies
- **Yeast**
  - **Type**: Lager or Ale
  - **Phenols**: Can be present
  - **Esters**: Can be present.

source: CraftBeer.com
Rye Beer

Style Family: Specialty Beers
In darker versions, malt flavor can optionally include low roasted malt characters (evident as cocoa/chocolate or caramel) and/or aromatic toffee-like, caramel, or biscuit-like characters. Low-level roasted malt astringency is acceptable when balanced with low to medium malt sweetness. Hop flavor is low to medium-high. Hop bitterness is low to medium. These beers can be made using either ale or lager yeast. The addition of rye to a beer can add a spicy or pumpernickel character to the flavor and finish. Color can also be enhanced and may become more red from the use of rye. The ingredient has come into vogue in recent years in everything from stouts to lagers, but is especially popular with craft brewers in India pale ales. To be considered an example of the style, the grain bill should include sufficient rye such that rye character is evident in the beer.

Quantitative Style Statistics

- OG: Varies
- FG: Varies
- ABV: Varies
- IBU: Varies
- BU:GU: Varies
- SRM: Varies
- CO2 Volumes: Varies
- Apparent Attenuation: Varies

U.S. Commercial Examples

- LowRYEder: SweetWater Brewing Co.
- Hoss: Great Divide Brewing Co.
- Breakside Rye Curious?: Breakside Brewery

Style A-Z

- Alcohol: Varies
- Color: Inclusion of rye can create a wide range of color. Lighter versions: Straw to Copper. Darker versions: Dark Amber to Dark Brown
- Clarity: Varies
- Country of Origin: Germany
- Collar of Foam (Head Retention): Varies
- Collar of Foam (Texture): Varies
- Carbonation (Visual): Varies

Food Pairings
- Cheese: Wensleydale
- Entrée: Jerk Chicken
- Dessert: Savory Bread Pudding

Glass
- Hop Aroma/Flavor: Hop flavor and aroma are low to medium-high. Hop bitterness is low to medium
- Hop Ingredients: Varies
- Malt Aroma/Flavor: In darker versions, malt aromas can optionally include low roasted malt characters evident as cocoa/chocolate or caramel, and/or aromatic toffee-like, caramel, or biscuit-like characters
- Malt Ingredients: Varies
- Other ingredients: Grist should include sufficient rye such that rye character is evident in the beer
- Palate Body: Varies
- Palate Carbonation: Low to High
- Palate Length/Finish: Varies
- Temperature: 45-55°F
- Water: Varies
- Yeast
- Type: Lager or Ale
**Phenols** Not common to style

**Esters** Low level fruity-ester flavors are typical

**Fermentation Byproducts** In versions served with yeast, appearance may range from hazy to very cloudy

source: CraftBeer.com
Session Beer

**Style Family: Specialty Beers**

This beer style is not defined by flavors or aromas, which can place it in almost any style category. Instead, what makes a session beer is primarily refreshment and drinkability. Any style of beer can be made lower in strength than described in the classic style guidelines. The goal should be to reach a balance between the style's character and the lower alcohol content. Drinkability is a factor in the overall balance of these beers. Beer should not exceed 5 percent ABV.

**Quantitative Style Statistics**

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<thead>
<tr>
<th>Attribute</th>
<th>Range</th>
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<td>CO2 Volumes</td>
<td>Varies</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>75 - 88</td>
</tr>
</tbody>
</table>

**U.S. Commercial Examples**

- **Provo Girl**: Utah Brewers Co-op
- **Twerp**: Pizza Port Brewing Co.
- **PSB Session IPL**: Perry Street Brewing Co.

**Style A-Z**

- **Alcohol**: Not Detectable to Mild
- **Color**: Varies
- **Clarity**: Varies
- **Country of Origin**: Undetermined
- **Collar of Foam (Head Retention)**: Varies
- **Collar of Foam (Texture)**: Varies
- **Carbonation (Visual)**: Varies
- **Food Pairings**
  - Cheese: Varies
  - Entrée: Varies
  - Dessert: Varies
- **Glass**: Varies
- **Hop Aroma/Flavor**: Varies
- **Hop Ingredients**: Varies
- **Malt Aroma/Flavor**: Varies
- **Malt Ingredients**: Varies
- **Other ingredients**: Varies
- **Palate Body**: Varies
- **Palate Carbonation**: Low to High
- **Palate Length/Finish**: Varies
- **Temperature**: Varies
- **Water**: Varies
- **Yeast**
  - **Type**: Lager or Ale
- **Phenols**: Can be present.
- **Esters**: Can be present.

source: CraftBeer.com
Smoke Beer

Style Family: Specialty Beers
When malt is kilned over an open flame, the smoke flavor becomes infused into the beer, leaving a taste that can vary from dense campfire, to slight wisps of smoke. This style is open to interpretation by individual brewers. Any style of beer can be smoked; the goal is to reach a balance between the style’s character and the smoky properties. Originating in Germany as rauchbier, this style is open to interpretation by U.S. craft brewers. Classic base styles include German-style Marzen/Oktobefest, German-style bock, German-style dunkel, Vienna-style lager and more. Smoke flavors dissipate over time.

Quantitative Style Statistics

- OG: Varies
- FG: Varies
- ABV: Varies
- IBU: Varies
- BU:GU: Varies
- SRM: Varies
- CO2 Volumes: Varies
- Apparent Attenuation: Varies

U.S. Commercial Examples

- **Smoke Jumper Smoked Imperial Porter**  
  Left Hand Brewing Co.
- **Smoked Porter**  
  Stone Brewing Co.
- **Raucher**  
  Wolverine State Brewing Co.

Style A-Z

- Alcohol: Varies
- Color: Varies
- Clarity: Varies
- Country of Origin: Germany
- Collar of Foam (Head Retention): Varies
- Collar of Foam (Texture): Varies
- Carbonation (Visual): Varies

Food Pairings

- Cheese: Parmesan
- Entrée: Grilled Vegetables
- Dessert: Gingerbread Cookies

- Glass: Vase
- Hop Aroma/Flavor: Varies
- Hop Ingredients: Varies
- Malt Aroma/Flavor: Varies
- Malt Ingredients: Varies
- Other ingredients: Common woods used by U.S. craft brewers to smoke a variety of malts: Apple, Alder, Beech, Cherry, Hickory, Mesquite, Oak
- Palate Body: Varies
- Palate Carbonation: Low to High
- Palate Length/Finish: Varies
- Temperature: 45-55°F
- Water: Varies

- Yeast
  - Type: Lager or Ale
  - Phenols: Can be present
  - Esters: Can be present

source: CraftBeer.com
Specialty Beer

Style Family: Specialty Beers
Special ingredients used in this style should be distinctive and evident in either the aroma, flavor or overall balance of the beer. This style category is a catch-all. Any specialty beer that does not fit other specialty beer styles would be appropriately considered here. Examples can include sahti, roggenbier, steinbier, white IPA, session IPA and more.

Quantitative Style Statistics

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<tbody>
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<td>CO2 Volumes</td>
<td>Varies</td>
</tr>
<tr>
<td>Apparent Attenuation</td>
<td>Varies</td>
</tr>
</tbody>
</table>

U.S. Commercial Examples

- Chainbreaker White IPA: Deschutes Brewery
- Sam Adams Norse Legend Sahti: Boston Beer Co.
- Campfire Stout: High Water Brewing

Style A-Z

- Alcohol: Varies
- Color: Varies
- Clarity: Varies
- Country of Origin: Undetermined
- Collar of Foam (Head Retention): Varies
- Collar of Foam (Texture): Varies
- Carbonation (Visual): Varies

Food Pairings

- Cheese: Varies
- Entrée: Varies
- Dessert: Varies

Glass

- Tulip

Hop Aroma/Flavor: Varies

Hop Ingredients: Varies

Malt Aroma/Flavor: Varies

Malt Ingredients: Varies

Other ingredients: Special or unusual ingredients or a combination of ingredients that bump a beer out of the other styles. For example, a "White IPA" is a combination of a Belgian-Style Wit and American IPA. Examples of specialty or unusual ingredients include maple syrup, potatoes, nuts, etc. Some beers use ingredients in unusual ways, such as a chili-flavored beer that emphasize heat rather than chili flavor, or a juniper berry beer in which the juniper is expressed more as herbal or spice qualities than as a berry or fruity character

- Palate Body: Varies
- Palate Carbonation: Low to High
- Palate Length/Finish: Varies
- Temperature: 45-55°F
- Water: Varies

Yeast

- Lager or Ale

Phenols: Can be present.

Esters: Can be present
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- Comments, suggestions, questions: contact Julia Herz: julia@brewersassociation.org

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