

Belgian Strong Ales

Kunming Homebrewing Society June 2015

Dubbel

The origin of the dubbel was a beer brewed in the Trappist Abbey of Westmalle in 1856. The abbey had, since 10 December 1836, brewed a light coloured beer that was quite sweet and light in alcohol for consumption by the monks. The new beer, however, was a strong version of a brown beer. In 1926, the formulation was changed and it became even stronger. The first written record of its sale by the abbey was on 1 June 1861. Following World War Two, abbey beers became popular in Belgium and the name "dubbel" was used by several breweries for commercial purposes.

Aroma

Complex, rich, malty. Malts may have hints of caramel, chocolate, even toast, but never roasted/burnt. Moderate fruity esters like raisins, plums, cherries, sometimes even banana and apple flavours. Spicy phenols and higher alcohols too (HANGOVER ALERT!) - cloves, spicy, pepper, rose, perfume. Usually no hops, and no diacetyl.

Appearance

Dark amber to copper, reddish depth, generally clear.

Flavour

Rich, complex, medium-full malty sweetness with a dry finish. Malt, ester, phenol, and alcohol interplay, with fruits and spices. Medium-low bitterness.

Mouthfeel

Medium-full bodied, medium-high carbonation, low alcohol warmth. Smooth, never solventy.

OG 1.062 - 1.075
FG 1.008 - 1.018
ABV 6 - 7.6%
IBU 15 - 25
SRM 10 - 17

Examples

- Westmalle Dubbel
- La Trappe Dubbel
- Chimay Red
- St. Feuillien Brune

Tripel

a.k.a. Strong Ale. The term was notably used in 1956 by the Trappist brewery at Westmalle to rename the strongest beer in their range. A new stronger beer was widely copied by the breweries of Belgium, and in 1987 another Trappist brewery, Koningshoeven in the Netherlands, also expanded their range with La Trappe Tripel.

Aroma

Complex with moderate to significant spiciness, moderate fruity esters and low alcohol and hop aromas. Generous spicy, peppery, sometimes clove-like phenols. Esters are often reminiscent of citrus fruits such as oranges, but may sometimes have a slight banana character. A low yet distinctive spicy, floral, sometimes perfumey hop character is usually found. Alcohols are soft, spicy and low in intensity. No hot alcohol or solventy aromas. The malt character is light. No diacetyl.

Appearance

Lighter than a dubbel. Deep yellow to deep gold in colour. Good clarity. Effervescent. Long-lasting, creamy, rocky, white head resulting in characteristic “Belgian lace” on the glass as it fades.

Flavour

More rounded flavour and not so sweet compared to a dubbel, and more bitter. Perfect marriage of spicy, fruity and alcohol flavours supported by a soft malt character. Low to moderate phenols are peppery in character. Esters are reminiscent of citrus fruit such as orange or sometimes lemon. A low to moderate spicy hop character is usually found. Alcohols are soft, spicy, often a bit sweet and low in intensity. Bitterness is typically medium to high from a combination of hop bitterness and yeast-produced phenolics. Substantial carbonation and bitterness lends a dry finish with a moderately bitter aftertaste. No diacetyl.

Mouthfeel

Medium-light to medium body, although lighter than the substantial gravity would suggest (thanks to sugar and high carbonation). High alcohol content adds a pleasant creaminess but little to no obvious warming sensation. No hot alcohol or solventy character. Always effervescent. Never astringent.

OG	1.075 – 1.085
FG	1.008 – 1.014
ABV	7.5 – 9.5%
IBU	20 – 40
SRM	4.5 – 7

Examples

- Westmalle Tripel
- Chimay White
- St. Feuillien Tripel

Belgian Golden Ale

Originally developed by the Moortgat brewery after WWII as a response to the growing popularity of Pilsner beers. It's a lager on steroids, introducing those characteristically Belgian spicy and fruity flavours, as well as a high alcohol content, to what would otherwise be a light beer. Basically a paler, crisper, lighter tripel.

Aroma

Complex with significant fruity esters, moderate spiciness and low to moderate alcohol and hop aromas. Esters are reminiscent of lighter fruits such as pears, oranges or apples. Moderate spicy, peppery phenols. A low to moderate yet distinctive perfumy, floral hop character is often present. Alcohols are soft, spicy, perfumy and low-to-moderate in intensity. No hot alcohol or solventy aromas. The malt character is light. No diacetyl.

Appearance

Yellow to medium gold in colour. Good clarity. Effervescent. Massive, long-lasting, rocky, often beady, white head resulting in characteristic “Belgian lace” on the glass as it fades.

Flavour

Fruity, spicy and alcohol flavors supported but with a soft malt character. Esters are reminiscent of pears, oranges or apples. Low to moderate phenols are peppery in character. Low to moderate spicy hop character is often present. Alcohols are soft, spicy, often a bit sweet and are low-to-moderate in intensity. Bitterness is typically medium to high from a combination of hop bitterness and yeast-produced phenolics. Substantial carbonation and bitterness leads to a dry finish with a low to moderately bitter aftertaste. No diacetyl.

Mouthfeel

Very highly carbonated. Otherwise the same as a tripel.

OG	1.070 – 1.095
FG	1.005 – 1.016
ABV	7.5 – 10.5%
IBU	22 – 35
SRM	3 – 6

Examples

- Duvel
- Delirium Tremens

How to make them!

Water

Soft water, low in calcium and magnesium, with low to medium pH.

Fermentables

All 3 are made with Pilsner malt as a base (although 2-row will do fine as well), along with aromatic specialty malts (not crystal), especially Munich for 'breadiness'. Dubbels might also have about 5-10% white sugar / candy syrup, relying more on specialty malts, while tripels and goldens might have up to 20% sugar. More sugar = less body. Cara Munich provides a dried cherry or plum note while chocolate malt can provide colour adjustment as well as a slight roasted nuttiness for dubbels. Specialty grains should make up at least 15% of the grain bill. Wheat or Carapils can add dextrin for mouthfeel and head retention. No spices are added.

Hops

Hops are a supporting role here so a clean bittering hop is usually added before or at the start of the boil. So-called 'noble' hops (Saaz, Hallertau) or English Fuggles, East Kent Goldings, Styrian Goldings.

Yeast

It's all about the yeast. Belgian yeast. They produce those fruity esters, spicy phenols, and higher alcohols. Some good examples are:

- White labs abbaye
- Wyeast 3787 (Westmalle)
- Wyeast 1214 (Chimay, slightly subtler)
- WL530
- Danstar Abbaye (Available in the co-op!)

Further reading: <https://byo.com/grains/item/1664-yeast-strains-for-belgian-strong-ales>

Fermentation Conditions

A lot can go wrong with these yeasts though - they can produce a lot of unwanted off-flavours, so be sure to control the fermentation conditions. Oxygenate your wort well before pitching the yeast. If using dried yeast, hydrate it first using some warm/tepid sweetened sterilised water and wait for the yeast to wake up so you can be sure it's healthy. Start of fermentation cool (around 18°C) for the first few days, which is when the majority of the ester profile is developed and there is a risk of solvent-like fermentation products, then bring it up to 21° or 22° for the esters to come through. These are styles that can benefit from longer fermentations for flavours to mellow & meld. Condition in the fermentor for at least a month and in the bottle for at least 4 months.