

CA

CRAFT BEER SUMMIT 2019



PILSNER

THE WORLD'S MOST IMITATIVE STYLE OF BEER



PRAGUE

Kolin

Pardubice

Opava

Ostrava

Plzeň

CZECH REPUBLIC

Olomouc

Tábor

Jihlava

Brno

Zlín

veské
ovice

Znojmo

Břeclav

SLOVA

A U S T R I A



CZECH REPUBLIC



HISTORY OF PILSNER

- Plzeň – 1842
- Joseph Groll



BOHEMIAN PILSNER

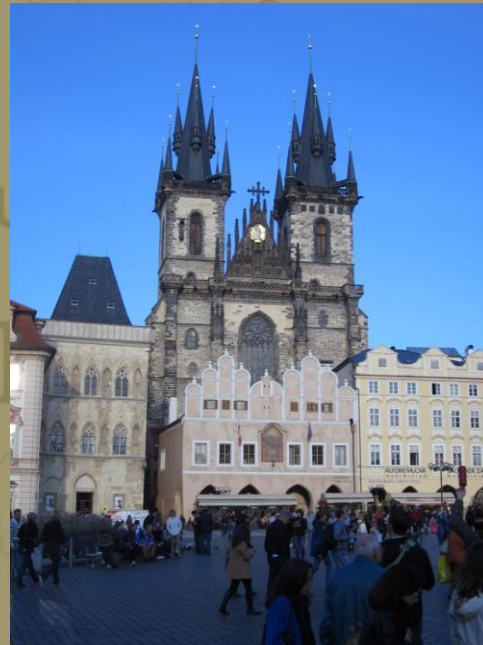


WHAT MAKES THIS BEER SO SPECIAL?

- Hops – Zatec, Saaz
- Malt – Moravian Barley
- Water – Very soft water
- Yeast – Clean single strain Czech lager yeast



FAMOUS BREWING TOWNS IN CZECH REPUBLIC



- Plzeň
- Praha (Prague)
- České Budějovice
- Žatec
- Olomouc - Haná



CZECH PILSNEERS



10 Degree Balling

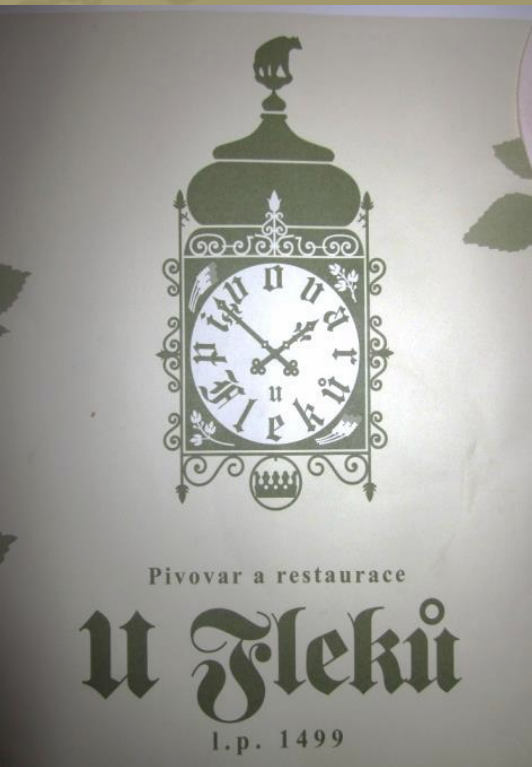
- Gambrinus
- Staropramen

12 Degree Balling

- Budvar
- Pilsner Urquell
- Žatec



CZECH PILSNEERS



13 Degree Balling

- U Fleků
- Svijany

14 Degree Balling

- Starobrno
- Kozel



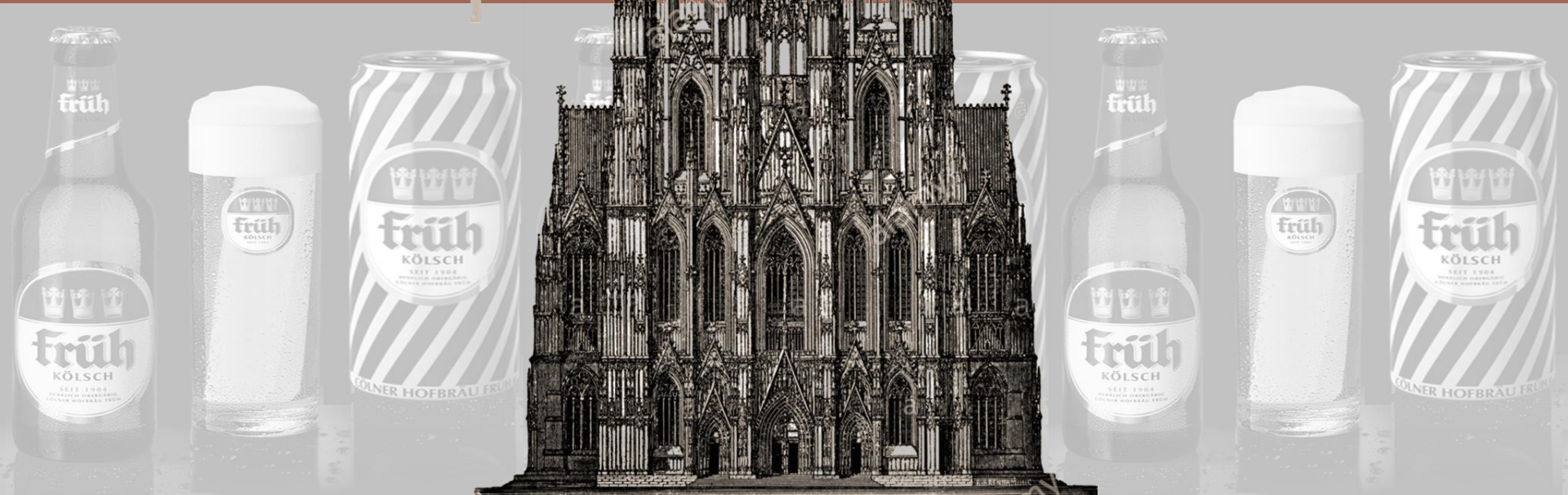
PILSNER BREWING TIMELINE

First Beer Brewed in Bohemia	First Beer from Budweis	First "Pilsner" Beer Brewed	Anheuser Busch in U.S.	Current Budweis Brewery	First Trademark Dispute	SAB Purchased Pilsner Urquell Brewery	InBev Purchased Anheuser Busch
1295	1795	1842	1876	1895	1907	1999	2008
King Wenceslas gave citizens the right to brew beer. Top fermented beer in Plzen	"Budweiser Burgerbrau" (German) formed	Joseph Groll founded Pilsner Urquell brewery	First marked Budweiser in America	"Pivovar Budejovicky Budvar" (Czech)	Start of many trademark disputes by Anheuser Busch	Largest brewery conglomeration in the world at that time	Sale price is \$52 billion



KÖLSCH

HISTORY AND STYLE



HISTORIC LORE OF KÖLSCH BIER



- Local specialty beer brewed in Cologne (Köln)
- Warm fermented (60-70°) then cold lagered
- Strictly defined by the Kölsch Konvention of Köln

HISTORY OF A UNIQUE STYLE



- 1396 Gaffel brewery the first Kölsch haus
- Guilds form with 21 other breweries
- Prior to WWII the city had over 40 breweries
- Post WWII only 2 would remain
- Today 13 “true” Kölsch haus’ operate in Köln



CHARACTERISTICS OF KÖLSCH



- **AROMA:** Slight fruity esters of apple, apricot, and pear. Mellow floury Pilsner malt, just a very small amount of yeast and/or sulfur. No diacetyl.
- **COLOR:** Very pale to light gold, lagered to a brilliant clarity. Sticky pillow, pure white head.
- **FLAVOR:** Soft pils malt, very well-rounded with a slight fruity sweetness. Low noble hop in the finish which leads to a dry clean finish. Delicate being paramount here.
- **MOUTHFEEL:** Smooth, crisp, and very refreshing.
- **OVERALL:** The Porsche of lawnmower beers.

KÖLSCH CULTURE



- Two competing cities making two distinctive styles of beer.
- Dusseldorf making Altbier and Kölsch (only 22 miles apart).
- Altbier being darker, higher ferment temp, more hops, and harder water.
- **SERVING & DRINKING:**
 - Stange: glassware 0.2cl
 - Kranz: special serving trays
 - Kobes: fast-moving waiters

KÖLSCH FERMENTATION



- Ingredients : Pilsner malt and up to 10% wheat malt, Hallertau hops, German ale/ Kölsch yeast
- Mash at 141-144°, raise to 155°
- Pitch Kölsch yeast (large amounts)
- Ferment @ 60-68 ° (could take 3 weeks)
- Cold crash to 34°
- Lager for 4-6 weeks minimum
- Vitals: IBU = 20 – 30
SRM = 3.5 - 4.5
OG = 1.045 - 1.050
FG = 1.008 - 1.011

Ferment Warm,
Lager Cold

Noble Hops

Kölsch

Ale Yeast

Pilsner Malt

SAISON

The background is a detailed painting of a rural landscape. In the foreground, a woman in a blue dress and a red hat stands next to a brown cow on a dirt path. The path leads towards a hillside where a white house with a red roof is visible. The sky is blue with white clouds. The overall style is reminiscent of 19th-century landscape painting.

FARM TO HOUSE TO FARMHOUSE:
A BEER FOR THE SEASON

CYCLES OF THE SEASON



- Brewed in the cooler months
- Stored in the Winter months
- Drunk during the Summer / Fall harvest months



FATHER OF THE MODERN SAISON



DUPONT

Vieille Provision

- Located on working farm dating back to the 1750's
- Original strength 3 – 3.5%
- Current Saison 6.5%
- Future Saison ???



THE STYLE OF SAISON



- *Highly carbonated*
- *Earthy, fruity, spicy*
- *Complex*
- *Finishes dry*



SAISON IN THE AMERICAS



- Ommegang
- de Garde
- Cascade
- Sante Adairius
- Hill Farmstead
- Jolly Pumpkin
- The Bruery
- Boulevard
- Urban Roots



FARMHOUSE SAISON

- All Grain 5 Gallons
- OG 1.060
- FG 1.002
- 35 IBU's

- 8.5 lbs Pilsner malt
- 1.0 lbs Wheat malt
- 0.5 lb Cara Munich
- 1.5 oz East Kent Goldings (60 min.)
- 0.5 oz Styrian Goldings (15 min.)
- 0.5 oz Saaz (15 min.)

- Yeast: Wyeast 3711 (French Saison) + WPL 585 + Dupont dregs or strain

- Mash at 148°, raise to 170° mashout
- Boil for 60 – 75 minutes

- Ferment:
 - Primary – 76° for 24 hours, 80° for 24 hours, 84° for 2 days, 88° for 4 days
 - Secondary – until FG is 1.002 or less (add Brett. if not finished or stuck)

- Possible additions:
 - White peppercorns
 - Coriander
 - Lemongrass
 - Lavender
 - Elderflower

SOUR

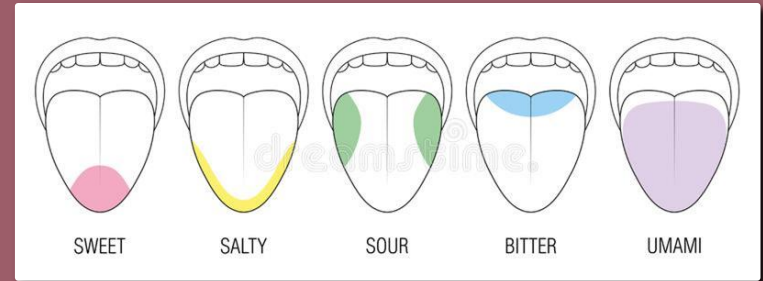
- Berliner Weisse
- Flanders Red
- Flanders Brown
- Lambic
- Gueuze
- Fruit Lambic



BEEERS

U
G
S

TASTING AND BUGS



Saccharomyces cerevisiae

MICROORGANISM TYPE:

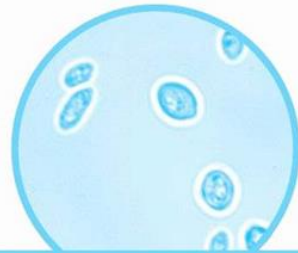
yeast (fungus)

FERMENTATION BYPRODUCTS:

alcohol, CO₂, flavor compounds (esters, phenols, VDKs, SO₂, acetaldehyde, etc.)

FOUND IN:

Pretty much everything—brown ale, stout, porter, amber ale, blond ale, witbier, abbey beers, etc.



Saccharomyces pastorianus

MICROORGANISM TYPE:

yeast (fungus)

FERMENTATION BYPRODUCTS:

alcohol, CO₂, flavor compounds (esters, phenols, VDKs, SO₂, acetaldehyde, etc.)

FOUND IN:

lager, pilsner, bock and some California commons



Brettanomyces

MICROORGANISM TYPE:

yeast (fungus)

FERMENTATION BYPRODUCTS:

alcohol, CO₂, acetic acid, flavor compounds

FOUND IN:

wild beers, saison (farmhouse-style ales), oud bruin, lambic and Flanders red ale



Lactobacillus

MICROORGANISM TYPE:

bacterium

FERMENTATION BYPRODUCTS:

lactic acid, flavor compounds, sometimes CO₂ and alcohol (for heterofermentative strains)

FOUND IN:

Gose, Berliner weisse and Flanders red/brown



Pediococcus

MICROORGANISM TYPE:

bacterium

FERMENTATION BYPRODUCTS:

lactic acid, diacetyl (provides flavors from cheesy and buttery to sweaty sock)

FOUND IN:

lambic, gueuze, hop-pier sour beers (more hop-tolerant than Lactobacillus) and Flanders red/brown

BERLINER WEISSE

“Champagne of the North”



- Lactobacillus – Gram positive rods
Lacto + Sugar = Lactic acid “sour milk”
- Mash is 30-50% wheat, 50% barley malt
- Ways to make a Berliner Weisse:
 - Add Lactic acid directly to beer
 - Infect wort with grain then allow bugs to sour
 - Pitch a Lactobacillus culture
 - Blend with another acidic sour beer
- ABV 2.8 – 4.5%
- Only one left in Berlin: Kindl-Schultheiss
- Can be sweetened by the addition of syrups

FLANDERS RED

West Flanders



- Wood aged with oxygen present = Acetobacter = Acidic Acid
- Rodenbach is the iconic classic
 - Blend of pale and darker malts with local Poperinge hops
 - Mixed yeast culture, 6 months to 2 years in the “foeders”
- Rodenbach classic: 3:1 young beer: old beer
- Rodenbach Grand Cru: 3:1 old beer: young beer



FLANDERS BROWN

East Flanders



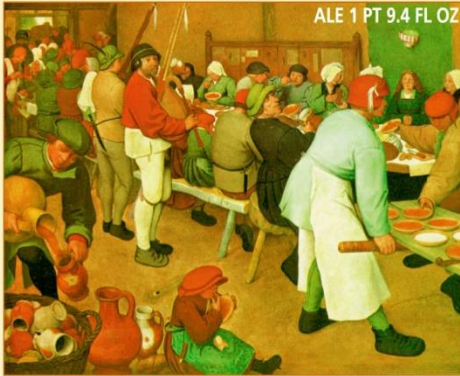
- These beers are aged warm in stainless steel, not so much oak ... therefore less Acetobacter, less acidic acid plus aged in bottles longer
- “Oud Bruin” historic style dating back to the 1600’s
- Made with a base of Pilsner malt but with darker malts plus a small amount of black or roast malt
- Examples: Liefmans Goudenband, Petrus Oud Bruin, Ichtegem

LAMBIC

Beer of the Senne Valley

CANTILLON

Brewers of Belgium's Most Authentic Lambic



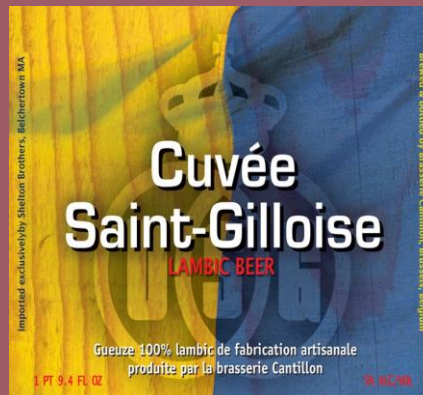
ALE 1 PT 9.4 FL OZ

Bruocsella 1900 Grand Cru

ORGANIC LAMBIC AGED THREE YEARS IN OAK



Grand Cru Bruocsella
Lambic Bio



Imported exclusively by Sleight Brothers, Belchertown MA

Brewed & Bottled by Brasserie Cantillon, Brussels, Belgium

Cuvée
Saint-Gilloise
LAMBIC BEER

Gueuze 100% lambic de fabrication artisanale
produite par la brasserie Cantillon

1 PT 9.4 FL OZ

9.4 FL OZ

- “Spontaneous Fermentation”
- Fermented by local micro biotic flora in and around Brussels
- These “wild bugs” have a combo of Brettanomyces, Lactobacillus, Pediococcus plus more than 60 others
- Unblended and served young (~6 months)
- Made with up to 40% unmalted Wheat, Pilsner malt and old/stale hops (~3 years or so). Transferred to Koelsch to ferment wild
- Best examples: Cantillon Grand Cru Bruocsella, De Cam, Boon, Drie Fonteinen, Girardin

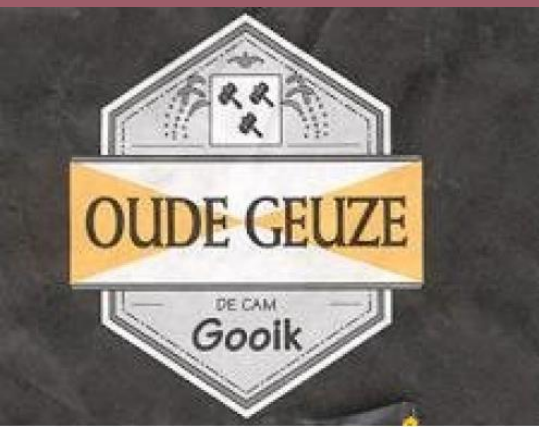


GUEUZE

“gur zah”



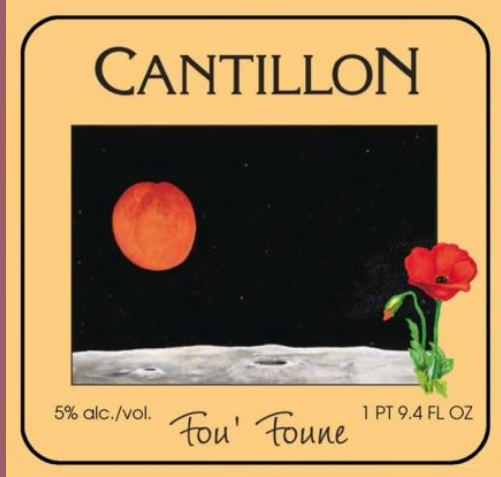
- Blends of old and young Lambic – art form by the brewer
- Always very carbonated - “The Champagne of Belgium”
- Can age for decades!!
- Examples:
 - Cantillon Gueuze
 - Hanssens
 - Boon
 - Lindeman's Gueuze Cuveé Rene
 - De Cam
 - Mort Subite
 - Oud Beersel



FRUIT LAMBICS



Kriek 100% Lambic



5% alc./vol. Fou' Foune 1 PT 9.4 FL OZ



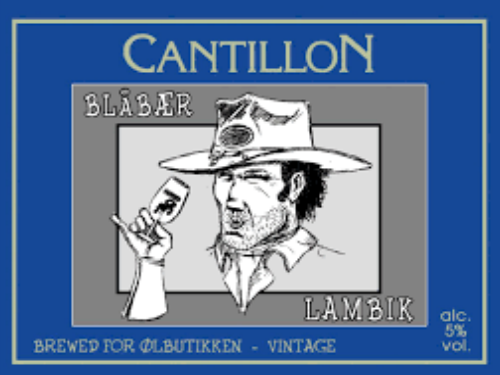
Vigneronne

Lambic Beer Brewed with Italian Muscat Grapes Aged in Oak Barrels



Oudbeitje

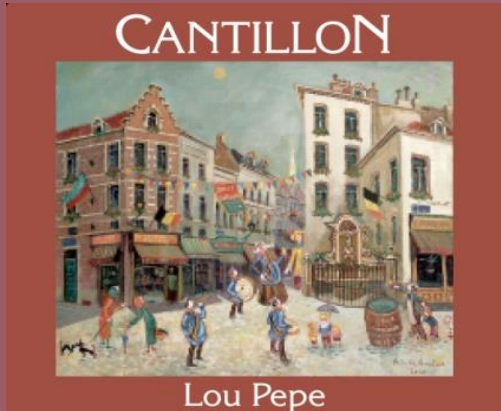
Lambic, pur, avec fraises fraîches, 100% produit naturel.



BLÅBÆR

LAMBIK

BREWED FOR ØLBUTIKKEN - VINTAGE alc. 5% vol.



CANTILLON

Lou Pepe

- Cherries - Kriek
- Raspberries - Framboise
- Peach - Pêche
- Apricots - Foú Foune
- Merlot grapes - St. Lamvinus
- Muscat grapes - Vigneronne
- Blueberries - Blåbær
- Apple - Pomme
- Currant - Cassis
- Strawberry - Oudbeitje

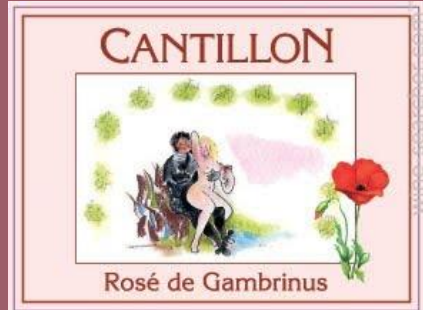


CANTILLON



Saint Lamvinus

LAMBIC BEER BREWED WITH MERLOT GRAPES AGED IN OAK BARRELS



CANTILLON

Rosé de Gambrinus