

Dessert Valley Brewery

Outline

- General Overview
- The "Science" of Pairing
- Elements
- Beer vs Food vs Beer + Food
- Sample Pairings
- Cooking with Beer

Flavour Rules

- Perceived intensity
- Specific perception: intensity & flavor
- Flavor does not change with temperature

Taste



The Why of Pairing

- The desirable elements are highlighted in both the beer and the dish
- Combination of the two provides memory, emotion, and/or deeper thought
- Pairing creates new flavours not originally present in either the beer or the dish

Beer Elements to Consider

- Hop flavor
- Hop bitterness
- Hop bitterness (note that these are related)
- Alcohol content
- Carbonation
- Tartness/sourness
- Fermentation-derived flavours (esters, phenols, etc.)
- Hop flavor/aroma
- Special ingredients/processes (e.g. fruit, coffee, barrel-aging, etc.)



Bio

Certified Sommelier
PCA Certified Beverage Retailer
Certified Beer Judge
Portuguese Beer Ambassador
American Society of Sommeliers Diploma
CCE

Wine & Beverage Director
Dessert Valley Liquor Store

Flavour



Olfactory



Olfactory

The human tongue can distinguish only about 100 distinct qualities of taste, while the nose can distinguish hundreds of substances, even in minute quantities.
The olfactory system is the only human sense directly bypassing the thalamus and connects directly to the amygdala. Memory distinguishes much different odors and most of these differences are caused by genetic differences.

India Pale Ale



Dark Abbey Ale

Dark strong ales are just that: complex, rich, dark, strong often sweet on the finish with a caramel note. Dubbel are less intense with a drier aftertaste. Fresh hop beers similar notes of dried fruits, spice and citrus. Both share intense carbonation that lets them cut richer dishes. Ranges from dark chocolate to espresso.

Winter - Hopped best shandy ever due to rice

Spring - Bacon bread pudding with caramel sauce and black berry, red onion salsa

Summer - Tacos of spiced pork loin and black berry, red onion salsa

Fall - Rauch deck with orange juice and cinnamon dusted porcospic

Cooking With Beer

Carbohydrates
Reduced water or reduced sugar
Reduced effects
Combining beer through cooking intensifies the flavor of the beer

Carbohydrates
Carbohydrates expand and melt more easily

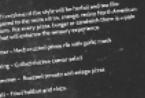
Malt flavor
Bitterness decreases and may disappear entirely
Add ingredients before brewing because flavors can be lost by cooking

The flavor of beer is lost during the brewing process

Pilsner



Pale Ale/Bitters



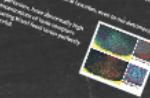
Blonde Abbey Ale



Stout



Evolution of Taste



Flavour Interactions



Flavour Interactions



Flavour Interactions



The Evolution of Taste



Ingredient Flavours



The Three C's



Food Elements to Consider



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Dessert Valley Brewery

Outline

- General Overview
- The "Science" of Pairing
- Sensations
- Brew with Food or Beer vs. Food
- Sensory Pairing
- Cooking with Beer

Flavour Rules

- No two rules are absolute
- Food properties will vary
- One rule does not apply to another
- Food day arrangements

Taste



The Why of Pairing

- The desirable flavours are heightened in both the beer and the dish
- Combination of the two involves memory, emotion, and the deeper thought
- Pairing creates new flavours not originally present in either the beer or the dish



Bio



Flavour



Olfactory



Olfactory

The human tongue can distinguish only a few thousand of distinct qualities of taste, while the nose can distinguish among hundreds of substances, even in minute quantities.

The olfactory system is the only human sense directly tied to the brainstem and connects directly to the brainstem. Memory

Different people smell different odors and most of these differences are caused by genetic differences.



India Pale Ale

A low alcohol beer of high strength, from England originally, of very strong hoppy flavor, bitter, aromatic, and slightly sweet. Used in stews or soups or as an ingredient in cooking rather than in beer.

Flavor effects:
Candied citrus through cooking enhances citrusy bitterness.

Bitterness is increased exponentially with higher concentration.

Malts - Peaking around 6% alc/vol

Mixes - Hand made gins, tonics, and sodas

Summer - Color enhanced with lime green and blue

Fall - Olive oil and lime juice added

Cooking With Beer

Beer is used in stews or soups or as an ingredient in cooking rather than in beer.

Flavor effects:
Cooked citrus through cooking enhances citrusy bitterness.

Bitterness is increased exponentially with higher concentration.

Flavour Rules



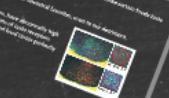
Everything is Subjective



Evolution of Taste



Evolution of Taste



Olfactory



Olfactory

90% of what we perceive as flavor is created by our sense of smell!

70% of the pleasure from beer is in the head.

Plant beer - A grain placebo

Flavour Interactions

Carbonation:
Carbon dioxide, flavor, and bitterness
Accelerates carbonation "heat"

Bitterness:
Creates astringency, and movement
Accelerates carbonation "heat"

Carbohydrates:
Astringency, carbohydrates, caramelize, and fruit flavors
Bitterness
Contrasts sweetness

Dark Abbey Ale

Dark strong ales are just their complex, rich, dark, strong often sweet after the finish with a caramel note. Dark ales are less intense with a bitter aftertaste. Fruity but share similar notes of dark fruits, spice and raisins. Bitter more intense carbonation that lets them richer notes.

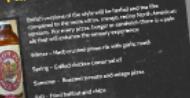
Winter - Bittered heat starts off ever dry rice

Spring - Bacon bread pudding with caramel sauce and vanilla ice cream

Summer - Tocas of aged pork ribs and blackberry red onion salsa

Fall - Roast duck with orange glaze and cinnamon distilled jamming

Pale Ale/Bitters



Pale Ale/Bitters

Medium strength beer for English beer. The original pale ale was developed in the 17th century in London to compete with every other foreign beer available due to its unique pale ale hops and pale malt.

Winter - Honeycrisp apples with gingersnap cookies

Spring - Cola-like citrus flavor

Summer - Business dinner and upscale place

Fall - French onion soup and risotto

Blonde Abbey Ale



Blonde Abbey Ale

Ranging from semi sweet blonde ales to fully dry nutty, citrus, spiced, and golden strong ales, all share hints of caramel, spices (grasses), the bite of the hops, and some of the intense carbonation creates a delivery of low alcohol and lots of fizziness on the tongue.

Winter - Roast turkey, cranberries, dressing and gravy

Spring - Skillet chicken and bell peppers in sweet chili sauce

Summer - French toast with cream cheese and fresh berries

Fall - Maple ginger squash soup

Beer Elements to Consider

- Hop flavour
- Hop bitterness
- Alcohol (body note that these are related)
- Acid
- Carbohydrates
- Tartness/sourness
- Fermentation derived flavours (esters, phenols, etc.)
- Water & Hops Aroma
- Special ingredients/processes (e.g. fruit, coffee, barrel aging, etc.)

The Three C's

Component: Similar or incompatible flavours present in both the beer and the food. These are often masked by the beer's bitterness, which can compete with the beer's flavours (hence a "Component" beer).

Contrast: By offering a surprising flavor, the beer highlights a flavor that would normally be masked by the beer's bitterness. Contrast is often the most effective way to highlight the beer's bitterness.

Cut: Beer has tools to help reduce the palate by killing, cleaning, or removing certain flavours from the palate. Common cutting tools include salt, sugar, and acid, which reduce the bitterness, and

Food Elements to Consider

- Flavor impact of individual ingredients
- Preparation/cooking method
- Temp served
- Season used
- Source served alongside
- Levels of fat, umami, sourness, bitterness, saltiness, smokiness, etc.



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Outline

Intro

General Iization

The “Science” of tasting

Elements

Beer with food or Beer vs. food

Sample pairings

Cooking with beer



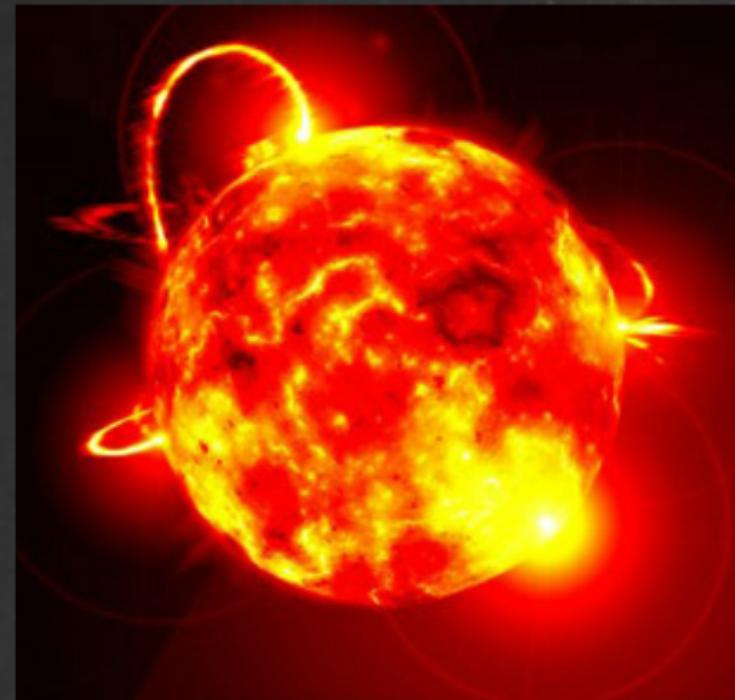
Bio

Certified Cicerone®
PICA Culinary Diploma
BJCP Certified Rank
ReUp BBQ
Pork Enthusiast
Homebrewer
BC Beer Awards Founder
ISG Sommelier Diploma
CSS

@SeriousBeer
Chester.Carey@GMAIL
Brewery Creek Liquor Store

Flavour Rules

- Not so much rules as guidelines
- Specific preparations, will vary
- Even beer styles allow for significant deviation
- Time of day, setting and sunspots



Everything is Subjective

"Everything in food is science. The only subjective part is when you eat it."

Alton Brown



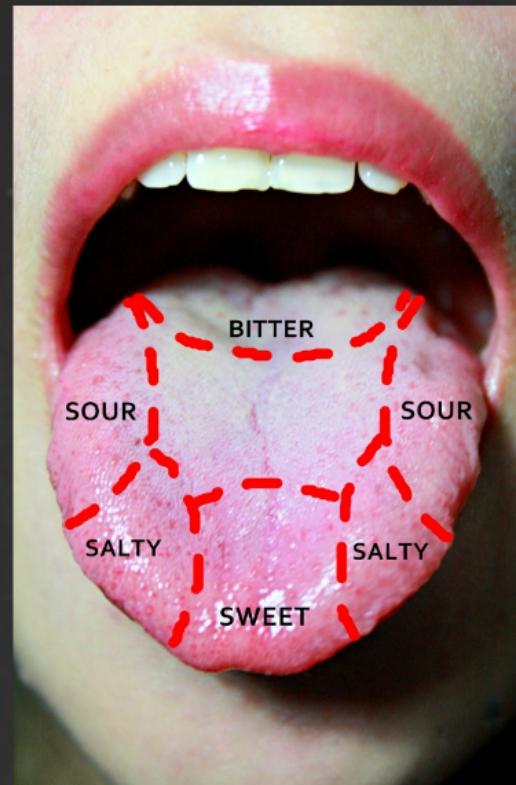
Food and beer have well defined science but our sense of taste is barely understood.

Personal preference is a very important factor, but are our preferences our own?

Taste

Chemical sense perceived by specialized receptor cells that make up taste buds which can be broken into:

Sour
Salty
Sweet
Bitter
Umami



Fat
Metallic
Spice

The Evolution of Taste

Sour: could be healthy, like oranges or lemons, or spoiled, like rotten milk.

Salt: foods had important vitamins and minerals.

Sweet: usually high in calories. First taste we crave

Bitter: often indicates poison. Last taste we develop appreciation for. IPA

Umami: savoury richness. Broth. MSG

Fat: make evolutionary sense

Ketchup: childhood superfood