Beer 101

Bellaire, Michigan
Craft Beer Basics

“Everything you need to know about craft beer in 30 minutes”

Jon Wojtowicz
After this session we will be able to...

• Understand the ingredients that go into making beer
• Determine the flavor contributions that can come from each specific ingredient
• Identify descriptive terminology that can be used to effectively describe flavors in beer
• Understand the differences between mainstream domestic beer and craft beer
• Acknowledge the proper steps required for tasting craft beer
What Is Beer?

• Beer is.....

“the world’s oldest and most widely consumed alcoholic beverage and the third most popular drink overall after water and tea. It is produced by the brewing and fermentation of starches, mainly derived from cereal grains - most commonly malted barley, although wheat, maize (corn), and rice are widely used. Most beer is flavored with hops, which add bitterness and act as a natural preservative, though other flavorings such as herbs or fruit may occasionally be included.”
What is Craft Beer?

According to the American Brewers Association:

American craft brewers are **small** (less than 6 million barrels/yr), **independent** (< 25% owned by a non-craft brewer) and **traditional** (beers made entirely or mostly from malt!)

Craft Brewers:

~ are Artists, reinventing beer
~ use historical traditions in modern brewing
~ strive for stylistic perfection
~ create new styles never seen before
In other words...

- Water
- Grain
- Hops
- Yeast
Grain

- Cereal Grains (barley, wheat, rye, maize, oats, rice) that have been converted to MALT

- **Malt**: is germinated cereal grains that have been dried in a process known as "malting".

- Malting grains develops the **enzymes** required to modify the grain's **starches** into **sugars**

- Further **malting** of dried germinated grain in a **kiln** using different temperatures and times, results in a range of **color** and **flavor** contributions to beer.
From Grain to Malt...

Cereal Grains → Germination → Malting (Heat and Time) → MALT
Hops

• **Humulus Lupulus:** *(common hop)* is a species of *Humulus* in the Cannabaceae family.

• **Hops:** are the female flowering cones of the Humulus Lupulus plant.

• Hops add **FLAVOR, AROMA, and PRESERVATIVE QUALITIES** to beer

• Thousands of different hop varieties growing all over the world!

• Processed as dried **whole leaf** or **pelletized** hops
From the fields to the brewery...

Humulus Lupulus

Packaged Whole Leaf

Hop Cones

Dried Hops

Packaged Pelletized
Water

• Availability! Up to 97% of beer is water.
• Much of the perceived flavor in beer can be directly related to how hard or soft the water is.
• Mineral content will effect pH, enzyme activity, hop profiles and clarity of finished beer

Yeast

• The most absolute, essential component for making beer!
• Single-celled micro-organism (fungus); *Saccharomyces*
• Yeast consumes sugars and converts them into alcohol (ethanol) and carbon dioxide.
• Yeast makes BEER!!
Flavor and Aroma Contributions

- **Malt**: bready, malty, nutty, caramel, toffee, toasty, roasty, chocolate, coffee, and more.

- **Hops**: floral, herbal, spicy, grassy, citrus, pine, bitterness, and more.

Hops provide the bitter counterpoint to the sweetness of malt.
Flavor Origins

- **Specialty Ingredients**: fruit, spices, vegetables, syrups, honey, pumpkin, Chile peppers, nuts, chocolate, and much more.

- **Yeast**: provides an array of aromas known as esters. These can often be fruity, spicy, yeasty, and alcohol.
How to Taste Craft Beer

• First taste begins w/ the presentation
  - clean glass
  - Nice creamy head of foam
  - proper temperature*
  - headspace to collect aroma

• Second check the aroma
  - describe specific aromas (memories)
  - malt or hop characteristics
  - fruity or spicy notes from yeast

• Note the appearance. Color? Clarity? Density of the head and time of retention?

• Then take a sip.....
  - is it sweet or bitter
  - highly carbonated
  - mouthfeel
  - initial taste into after taste
  - balanced
What Does Color Have to Tell Us?

Body
- Light
- Medium
- Heavy

Flavor
- Flour
- Bready
- Biscuity
- Caramel
- Toffee
- Chocolate
- Coffee

Color
- Light (Toasted vs. Roasted)
- Medium
- Heavy

Style
- Hefeweizen
- Light Lager
- Pilsner
- Pale Ale
- Brown Ale
- Porter
- Stout

(What about hops?)

is this always the case....?
Tasting Is Believing

“Tasting Beer, Eating Food, and Knowing How to Talk About It”

Jon Wojtowicz
Why is it important to know how to identify flavors in beer?

– Accurately describe beers to your customers and make knowledgeable suggestions

– Understand which flavors are associated with certain styles

– Ability to pair with food

– Self education
Why are people pairing beer with food?

- Expand passion for craft beer by combining it with food
- It’s easy to do and fun
- Beer is incredibly versatile
- No limitations
“Beer is so varied, so complex, and offers such a cornucopia of flavors that it finds ways to complement, contrast with, and elevate all cuisine—from the lowly chip and dip to the most perfectly aged steak. There are so many different beer tastes that it’s actually more flexible than wine when it comes to creating the perfect pairing”

Chief Editor of All About Beer Magazine and author of The American Craft Beer Cookbook

- John Holl
Beer and Food Pairing Basics

• Purpose of the Pairing (aka The 3 C’s)
  • To Cleanse
  • To Contrast
  • To Complement

• Complement, complement, complement, complement

• Match Intensities
  – Intensity is a measurement of how the weight and flavors of the beer or food impact the palate
  – Flavors are not similar but their intensities are!
    (ex. IPA and Blue Cheese)

• Flavor Bridging
  – Combining like flavors to accentuate similarities in the beer and food
    (ex. Stout and Chocolate)
Tasting #1

- Note the Appearance and Presentation
- Check the Aroma
- Take a Sip....

Local’s Light with Pretzels and Mustard

<table>
<thead>
<tr>
<th>The Beer</th>
<th>The Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeasty Bready Aromas</td>
<td>Salty</td>
</tr>
<tr>
<td>Delicate Malt Flavors</td>
<td>Dry</td>
</tr>
<tr>
<td>Light Sweetness</td>
<td>Bready</td>
</tr>
<tr>
<td>Ample Effervescence</td>
<td>Sharp Mustard</td>
</tr>
<tr>
<td>Crisp Clean Finish</td>
<td>Minimal Palate Impact</td>
</tr>
</tbody>
</table>
Tasting #2
• Note the Appearance and Presentation
• Check the Aroma
• Take a Sip....

Bellaire Brown with Mixed Candied Nuts

<table>
<thead>
<tr>
<th>The Beer</th>
<th>The Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweet Malty Aromas</td>
<td>Salty</td>
</tr>
<tr>
<td>Caramel and Toffee</td>
<td>Nutty</td>
</tr>
<tr>
<td>Toasted Qualities</td>
<td>Caramel and Toffee</td>
</tr>
<tr>
<td>Medium Body</td>
<td>Palate Coating Sweetness</td>
</tr>
<tr>
<td>Slightly Dry Finish</td>
<td>Dry</td>
</tr>
</tbody>
</table>
# Tasting #3

- Note the Appearance and Presentation
- Check the Aroma
- Take a Sip....

## Soft Parade and Dark Chocolate

<table>
<thead>
<tr>
<th>The Beer</th>
<th>The Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruity Aromas</td>
<td>Cocoa</td>
</tr>
<tr>
<td>Sweet and Tart Fruit</td>
<td>Sweet</td>
</tr>
<tr>
<td>Refreshing</td>
<td>Bitter</td>
</tr>
<tr>
<td>Ample Effervescence</td>
<td>Rich Strong Flavor</td>
</tr>
<tr>
<td>Light Body</td>
<td>Palate Coating Sweetness</td>
</tr>
<tr>
<td>Dry Finish</td>
<td>Dry</td>
</tr>
</tbody>
</table>

Fruity Aromas, Sweet and Tart Fruit, Refreshing, Ample Effervescence, Light Body, Dry Finish, Cocoa, Sweet, Bitter, Rich Strong Flavor, Palate Coating Sweetness, Dry
Tasting #4

• Note the Appearance and Presentation
• Check the Aroma
• Take a Sip....

Huma with Pepper Jack Cheese

The Beer
- Floral Hop Aromas
- Subtle Maltiness
- Citrus and Pine
- Big Lasting Bitterness
- Medium Body
- Bitter and Dry Finish

The Food
- Spicy
- Salty
- Peppery
- Rich and Fatty
- Palate Coating Savoriness
- Lingering Spiciness
Cashing in on Craft Beer

“Boost your bottom line by selling craft beer”
Scott Newman-Bale
Total Beer Volume

Total beer volume DOWN 36,077 BBLs or 0.6%

Barrels Sold in MI

2007 6,150,000 6,250,000 6,350,000 6,450,000 6,550,000 6,650,000
# Top 16 Breweries 2013

<table>
<thead>
<tr>
<th>BREWER</th>
<th>Barrels</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-Bev</td>
<td>3,228,896</td>
<td>(2.1)</td>
</tr>
<tr>
<td>SAB Miller</td>
<td>1,689,952</td>
<td>(0.5)</td>
</tr>
<tr>
<td>North American Breweries</td>
<td>341,666</td>
<td>(3.0)</td>
</tr>
<tr>
<td>Pabst Brewing Company</td>
<td>142,297</td>
<td>(6.8)</td>
</tr>
<tr>
<td>Crown Imports, LLC</td>
<td>134,232</td>
<td>4.8</td>
</tr>
<tr>
<td>Bell’s Brewery</td>
<td>101,472</td>
<td>6.8</td>
</tr>
<tr>
<td>Heineken USA</td>
<td>107,590</td>
<td>(9.0)</td>
</tr>
<tr>
<td>Boston Beer Co</td>
<td>75,988</td>
<td>6.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BREWER</th>
<th>Barrels</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diageo (Guinness + FMB)</td>
<td>58,182</td>
<td>(11.4)</td>
</tr>
<tr>
<td>New Belgium</td>
<td>34,097</td>
<td>66.2</td>
</tr>
<tr>
<td>Founder’s Brewing</td>
<td>33,871</td>
<td>24.5</td>
</tr>
<tr>
<td>Short’s Brewing Company</td>
<td>22,509</td>
<td>26.6</td>
</tr>
<tr>
<td>Sierra Nevada</td>
<td>15,790</td>
<td>(0.3)</td>
</tr>
<tr>
<td>New Holland Brewing Co</td>
<td>12,106</td>
<td>25.1</td>
</tr>
<tr>
<td>Atwater</td>
<td>10,514</td>
<td>58.3</td>
</tr>
<tr>
<td>Keweenaw Brewing Co, LLC</td>
<td>8,895</td>
<td>18.5</td>
</tr>
</tbody>
</table>
MICHIGAN BREWERS
Total brewing licenses (As of May 16th, 2014)

Types of Brewing Licenses

- Micro Brewery - 113
- Brewpub - 56
- Brewer - 3
CRAFT MARKET SHARE

2011:
- Out Of State: 1.7%
- Michigan: 3.3%

2012:
- Out Of State: 2.2%
- Michigan: 3.9%

2013:
- Out Of State: 2.5%
- Michigan: 4.9%
# How Do We Compare?

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th># of Breweries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>California</td>
<td>381</td>
</tr>
<tr>
<td>2</td>
<td>Oregon</td>
<td>212</td>
</tr>
<tr>
<td>3</td>
<td>Washington</td>
<td>201</td>
</tr>
<tr>
<td>4</td>
<td>Colorado</td>
<td>175</td>
</tr>
<tr>
<td>5</td>
<td>Michigan</td>
<td>172</td>
</tr>
<tr>
<td>6</td>
<td>New York</td>
<td>165</td>
</tr>
<tr>
<td>7</td>
<td>Pennsylvania</td>
<td>108</td>
</tr>
</tbody>
</table>
Craft Beer Benefits

• Cross Merchandising
  – Pairings (Meat, Fish, Chocolate, Baked Goods)
  – Beer Dinners
• Relationship Builder
• According to IRI craft beer
  – Shows a good selection and elevates the perception of the business
  – Brings in more dollars and increases average basket ring or ticket
  – Has a personal connection to the community
  – Is outperforming ALL other beer categories
## Craft beer benefits

### ON PREMISE

<table>
<thead>
<tr>
<th></th>
<th>Bud Light</th>
<th>Locals Lager</th>
<th>Huma Lupa Licious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keg Price</td>
<td>$89</td>
<td>$99</td>
<td>$140</td>
</tr>
<tr>
<td>Price Per Pint</td>
<td>$0.99</td>
<td>$1.10</td>
<td>$1.56</td>
</tr>
<tr>
<td>Sales Price per Pint</td>
<td>$3</td>
<td>$4</td>
<td>$5</td>
</tr>
<tr>
<td>Profit Per Pint</td>
<td>$2.01</td>
<td>$2.90</td>
<td>$3.44</td>
</tr>
<tr>
<td>Profit Per Keg</td>
<td>$181</td>
<td>$261</td>
<td>$310</td>
</tr>
<tr>
<td>Profit Margin</td>
<td>203%</td>
<td>264%</td>
<td>221%</td>
</tr>
</tbody>
</table>

* Estimated 90 16oz pints per keg
Craft beer benefits
OFF PREMISE

<table>
<thead>
<tr>
<th></th>
<th>Bud Light</th>
<th>Locals Lager</th>
<th>Huma Lupa Licious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case Price</td>
<td>$18.70</td>
<td>$24</td>
<td>$33</td>
</tr>
<tr>
<td>Price Per Six Pack</td>
<td>$4.68</td>
<td>$6.00</td>
<td>$8.25</td>
</tr>
<tr>
<td>Sales Price per Pack</td>
<td>$6.49</td>
<td>$7.99</td>
<td>$10.99</td>
</tr>
<tr>
<td>Profit Per Pack</td>
<td>$1.81</td>
<td>$1.99</td>
<td>$2.74</td>
</tr>
<tr>
<td>Profit Per Case</td>
<td>$7.24</td>
<td>$7.96</td>
<td>$10.96</td>
</tr>
</tbody>
</table>

* Case of four 6 packs, assuming a 25% markup
Be the Best Around

Define Your Reputation Through Quality

Joe Short
Why Do you want to be the best around?

• Why is quality important to your reputation?
  • You want your business to be successful.
  • Because the reputation of your business is important to it’s survival.
  • Because whatever goods or service you provide, you want to be the first choice of any and all consumers right?
  
    » In this case we’re talking about on premise and retail craft beer
Why Do you want to be the best around?

• Define Quality:
  – 1. The standard of something as measured against other things of a similar kind; the degree of excellence of something.
    • "an improvement in product quality"
  – 2. A distinctive attribute or characteristic possessed by someone or something.
    • "he shows strong leadership qualities"
What are some things you can do that will make you “The Best Around”?

• Wash and Wax Mr. Miyagi’s car or come to a Short’s Brewing Regional beer Seminar.

• Put yourself in the consumers shoes - “What defines quality for you?”
Stuff I look for as a consumer when I’m at an on premise location

• The staff knows how to pour a beer
• They have clean glassware
• The establishment is clean
• They have a draft line maintenance schedule and they rotate their product - The Beer tastes Good! It’s Fresh!
• The beer selection is great (they have Huma)
• The staff is attentive and knowledgeable and they know the lingo
Stuff I look for as a consumer when I’m at a retail location

• People who know what they're talking about to help me fit my flavor profile

• The craft beer is cold

• The stock is rotated
Stuff people say when you’re the best around

Friendly
“The owners, are both super friendly and will talk you through all of your beer buying decisions. They are very knowledgeable and can match to your beer tastes.”

- Review on YELP for 8 Degrees Plato, Ferndale

Knowledgeable
“Outstanding local beer selection. The staff is well informed about the different types of beer. Don't come here if you want a Bud Light.”

- Review on Trip Advisor for 7 Monks Taproom, Traverse City

Maintained and Clean
“The beer selection is enormous. I always worry about the beer lines where the taps number greater than 30 or so, but I did not taste anything to indicate the lines are not properly maintained.”

- Review on Beer Advocate for Shakespeare’s Pub, Kalamazoo
What can you do to ENSURE you have a good reputation for selling craft beer?

• **Have a Draft System Maintenance Program**

  ▪ According to the Brewers Association
    ▪ Caustic/detergent cleaning every 2 weeks
    ▪ Acid cleaning every 3 months
    ▪ Disassemble, service, and hand clean all faucets and couplers every 2 weeks
What can you do to ENSURE you have a good reputation for selling craft beer?

- Professional Beer Line Cleaning Services
  - $6-9.00 per line
  - On average 15-20min per draft line
  - 3-5min per faucet and coupler

- It’s a quick, inexpensive way to boost your quality and your sales
  - So they don’t end up looking like this
What can you do to ENSURE you have a good reputation for selling craft beer?

– You can also avoid “Shank Stank” by upgrading your equipment with stainless
  – Which costs money, but adds value to your “quality”
What can you do to ENSURE you have a good reputation for selling craft beer?

• You and your Staff know how to change a keg

• You keep your coolers clean and operating at the correct temperature

36° - 48° F
What can you do to ENSURE you have a good reputation for selling craft beer?

• Caring for your Craft Beer

Avoid:

**Sunlight**- When sunlight hits beer, it causes a chemical reaction that creates “skunked” flavors in beer; light struck.

**Aging**: Will cause flavors and aromas in beer to naturally degrade over periods of time. Craft beer is best drank fresh!!

**Heat**- Will accelerate the staling process, producing oxidized flavors among other flaws; wet cardboard
What can you do to ENSURE you have a good reputation for selling craft beer?

<table>
<thead>
<tr>
<th>Temperature (Celsius)</th>
<th>Temperature (Fahrenheit)</th>
<th>Shelf Life (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 °C</td>
<td>32 °F</td>
<td>800</td>
</tr>
<tr>
<td>10 °C</td>
<td>50 °F</td>
<td>266</td>
</tr>
<tr>
<td>20 °C</td>
<td>68 °F</td>
<td>89</td>
</tr>
<tr>
<td>30 °C</td>
<td>86 °F</td>
<td>30</td>
</tr>
<tr>
<td>40 °C</td>
<td>104 °F</td>
<td>10</td>
</tr>
<tr>
<td>50 °C</td>
<td>122 °F</td>
<td>3</td>
</tr>
<tr>
<td>60 °C</td>
<td>140 °F</td>
<td>1</td>
</tr>
</tbody>
</table>

- Rotate Your Stock
- First in, First out
What can you do to ENSURE you have a good reputation for selling craft beer?

• Keep Learning and Evolving
  – Read the Rate Beer and Beer Advocate websites.
  – Research brewery FB pages and websites.
  – Knowledge is power.

• Invest in the Consumer
  – Learn your customer
  – Know your customer
The Power of GROWLERS

“Growlers 101 for Everyone”
Scott Newman-Bale
The Historic Growler
Types of Growlers

Glass
- [Image of various glass growlers]

Stainless Steel
- [Image of stainless steel growlers]

Plastic
- [Image of plastic growlers]

Ceramic
- [Image of ceramic growlers]
Growler Filling Methods

• The Free Pour

• Filling Tubes

• Beer Gun

• Others
Growler Filling Methods
Pros and Cons

• The Free Pour ($)
  – Creates an oxygen rich environment; stale beer faster
  – Uncontrolled pouring and foaming; waste
  – Fill height subject to bartender

• Filling Tubes ($)
  – Oxygen pushed out by rising beer from the bottom
  – Controlled pouring with minimum foaming; less waste
  – Proper fill height achieved by tube removal
  – Tubes can be cleaned and reused for numerous beers
Benefits of Selling Growlers

• Novelty
• Impulse Purchase
• Increase Tips
• Advertising your establishment
• Repeat Business
• Increases Rotation

• In 2013, Short’s Brew Pub Sold:
  • 23,224 growlers (+380 howler - new from late November)
  • 67% of those growler/howler sales are from refills
  • Growler sales totaled the equivalent of approx 370bbls of beer (Bellaire production is about 2000 per yr total)
Proper Handling and Storage

• Do not overfill a growler!
  • Always leave 5% headspace

• Filled growlers can break if they get too warm or freeze
  • Growlers should be refrigerated avoiding temperature above 55

• Only use growler containers specifically designed for packaged, carbonated beer

• Inspect every growler before filling

• Consume growlers the day they are opened
Cleaning Growlers

• Growlers should be cleaned immediately after they have been used.
• Rinse with a low foam, non oil-based solution (ex. Beer Clean) in warm or hot water.
• Rack dry, inverted if possible.
• Allow cleaned growlers to dry completely; do not store sealed and wet.
• Never fill a growler while still wet with sanitizer; allow to drip dry.
• Rinse growlers with cool water before filling to minimize foaming.
• Clean the lid.
Michigan Growler Laws and Regulations

- Growlers are permitted under Michigan Law
- To legally Sell Growlers
  - Apply for a Specially Designated Merchant (SDM) license at a cost of $70 per year
  - Own a class C, tavern, class A hotel, class B hotel, club, class G-1, or class G-2 license
Michigan Growler Laws and Regulations

- Conditions
  - Comply with the requirements for food service establishments
  - Only fill containers specifically intended for beer
  - Only fill a container of a gallon or less
  - Affix a label containing
    - The class of Beer
    - Brand Name of the Beer
    - Net contents of the Container
    - Name of establishment filling the growler
  - Do not fill growlers in advance of a sale
  - Only fill from a 1/6 barrel or larger keg
  - The beer to be dispensed has received a registration number and has been approved for sale by the state of Michigan
The Why, How & What of Selling More Beer. For FREE

Pauline Knighton
We all have a brand image

• Short’s
  – Label Art
  – Beer Recipes
  – Michigan Only. Michigan Forever

• Account
  – Customer Service
  – Product Variety
  – Product Quality

Brand = credibility, experience, quality
HOW TO REINFORCE BRAND

LIFE IS CRAZY. REMIND THEM WHY THEY LOVE YOU AND WANT TO RETURN TO YOU.

1. KNOWLEDGE
   1. STORIES OF THE PRODUCT
   2. BE EXCITED ABOUT THE PRODUCT
   3. KNOW THE PRODUCT
   4. Quality of Product

2. VISUALS
   1. WEB VISUALS- ONLINE PRESENCE
   2. Establishment VISUALS- IMPERIAL BEVERAGE CO. POINT OF SALE (POS) VISUALS
WHAT ARE THE VISUALS

- WEBSITE = TIME + no to low COST
  - WORDPRESS.COM
  - UPDATE REGULARLY
  - All About Searchability
WHAT ARE THE VISUALS

- FACEBOOK PAGE = TIME + NO COST
- Visual
- Informational
  - TELL PEOPLE WHAT PRODUCT YOU HAVE
- Update REGULARLY
- Real Time
- Can Act as a Website
- INTERACTION WITH SHORT'S FACEBOOK PAGE
WHAT ARE THE VISUALS

• Newsletter = Time + Little to No Cost
  – Constant contact
  – Mail chimp
  – Get Response

• Visual
• Informational
• Regular
WHAT ARE THE VISUALS

• Imperial POS options= FREE!!!!!!!!
  – Posters
  – Shelf displays
  – Table tents

• Visual
• Informational
• Regular
• FREE
Get THE VISUALS

** Ask Your Imperial Rep to Put in an Order
REMEMBER THIS…

• Build relationships with knowledge and visuals
• Online Presence
  – Untappd.com
  – BeerMenus.com
  – Facebook
  – Twitter
  – Website

• Visual, Informational, and regular
• Ask your Imperial Rep about POS options
  – 25-40% increase of sales for **FREE!!!!**