Draught System Sensory
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What is Draught System Sensory?
What is Draught System Sensory?

• Core = Sensory Analysis
  • In your tap room or at an account
  • Same issues, different resolutions
Topics

- Where to start
- What can go wrong
- Solutions
- Resources
Where to Start
Where to Start

• Know YOUR beer
• What is True To Type?
  • Brewers Intent
• What is an off flavor?
  • Draft Systems
Critical Control Points
Critical Control Points

- When to taste?
- Where is there risk of a flavor impact
- Who should taste?
  - Inside the brewery
  - In the trade?
Best Sensory Practices
Best Sensory Practices

• Consistent
• Focused
• Reduce Bias
What Can Go Wrong?
Where to Start

• Now that your team is prepared, what are they looking for?
  • Start Simple
    • Wrong beer?
    • Date code
    • Draught balance issues?
    • Temperature
  • Simple explanations don’t explain it?
    • Are the lines clean?
Lines should be cleaned every 14 days.
Figure 7.2. Bacteria can grow exponentially in uncleaned draught lines.

Five stages of biofilm development:
(1) Initial attachment, (2) Irreversible attachment,
(3) Maturation I, (4) Maturation II, and (5) Dispersion.

Figure 7.1. Biofilms can easily become established in dirty lines.
Diacetyl

**Causes:**

- Pediococcus and Lactobacillus bacteria

**Solutions:**

- Routine Line Cleaning
Lactic Acid

Causes:
- Lactobacillus bacteria

Solutions:
- Routine Line Cleaning
Acetic Acid

Caustic

Causes:
- Acetobacter

Solutions:
- Routine Line Cleaning
4-Ethylphenol

Causes:
- Brettanomyces
- Lactobacillus

Solutions:
- Routine Line Cleaning
Other Flavor Changes
Trans-2-Nonenal

Causes:
- Oxygen

Solutions:
- Product Rotation
- Extended time in vinyl lines
Foamy/Flat Beer

Causes:
- Wrong pressure

Solutions:
- Balance system, use correct pressure
Lightstruck

Causes:
- UV Light

Solutions:
- Tell your customer to keep their beer in the shade
What to do Next

• Think you found something?
  • Try another taster
  • Try another line
  • Try another keg

• Develop a process
  • Follow up
  • Record keeping
  • Don’t be surprised
    • Have system beforehand
    • Train team on system
<table>
<thead>
<tr>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account:</td>
</tr>
<tr>
<td>Distributor:</td>
</tr>
<tr>
<td>Source of Complaint</td>
</tr>
<tr>
<td>Account Address</td>
</tr>
<tr>
<td>On or Off Promise</td>
</tr>
<tr>
<td>Item</td>
</tr>
<tr>
<td>Batch</td>
</tr>
<tr>
<td>Issue</td>
</tr>
<tr>
<td>Comments</td>
</tr>
</tbody>
</table>
Resources
Resources

• DIY
  • Ask a brewer
  • Grocery store options
  • Skunk some bottles

#CraftBrewersCon
Guidelines for Doctoring Beers

- BJCP has some DIY options
  - Google – “Guidelines for Doctoring Beers”
- Here’s an example
<table>
<thead>
<tr>
<th>FLAVOR</th>
<th>SENSORY PROFILE</th>
<th>ADULTERANT</th>
<th>AMOUNT FOR 12 OZ.</th>
<th>AMOUNT FOR 1L.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acidic – lactic</td>
<td>Clean, sharp sourness. Acidic</td>
<td>USP lactic acid</td>
<td>Make a solution of one part 88% lactic acid and four parts water. Use ½ tsp of the diluted solution.</td>
<td>Add 7.5 ml of the solution.</td>
</tr>
<tr>
<td>Acidic – acetic</td>
<td>Vinegar</td>
<td>White wine vinegar</td>
<td>3/4 tsp</td>
<td>10.5 ml.</td>
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<tr>
<td>Diacetyl</td>
<td>Butter extract</td>
<td>4-5 drops</td>
<td></td>
<td>11 – 14 drops</td>
</tr>
<tr>
<td>Lightstruck</td>
<td>N/A</td>
<td>Exposure commercial beer in green bottles to sunlight for 1-3 days</td>
<td>Same.</td>
<td>Same.</td>
</tr>
<tr>
<td>Papery oxidation</td>
<td>N/A</td>
<td>Open bottles to air, reseal, and keep at 100 °F (40 °C) or warmer for several days</td>
<td>Same.</td>
<td>Same.</td>
</tr>
<tr>
<td>Sherry Oxidation</td>
<td>Sherry-like</td>
<td>Dry sherry</td>
<td>3/4 tsp</td>
<td>10.5 ml.</td>
</tr>
<tr>
<td>Vanilla</td>
<td>Custard powder, vanilla essence</td>
<td>Vanilla extract</td>
<td>Make a solution of one part vanilla extract to five parts water. Add ¼ tsp to the sample.</td>
<td>Add 3.75 ml of the solution.</td>
</tr>
</tbody>
</table>
Resources

- Brewers Association
  - Resource Hub
- Kits
  - Siebel
  - Aroxa
Recap

• Know your beer.
• Know what can go wrong.
• Know what to do - and how best to prevent future issues!
THANK YOU!

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