FLAVOR TRAINING BY CICERONE®
BREWERY PRODUCTION OFF FLAVORS

CCBA Summit 2019

Pat Fahey – @PatFahey24 – #FlavorTraining

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CERTIFICATION PROGRAM

OUTLINE

- Explore basic taste physiology
- Cover tasting techniques
- Familiarize with pure compounds
- Identify causes, controls, and prevention

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THANK YOUS: BASE BEER

- Base Beer:
  - Sierra Nevada Pale Ale
  - BIG thanks to Sierra Nevada for donating the beer!!

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THANK YOUS: FLAVOR STANDARDS

- Flavor Standards from Aroxa
  - Flavor standards are best way to do attribute training

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TASTING TECHNIQUES

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UNDERSTANDING FLAVOR

- Flavor is a composite of all senses
- Tongue has limited number of tastes
  - Sweet, sour, bitter, salty, umami
  - Fat
- Nose/aroma drives flavor perception

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AROMA SAMPLING TECHNIQUES

- Swirl glass
- Sample aroma
  - Distant sniff
  - Short sniff
  - Long sniff
  - Covered sniff

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TASTING TECHNIQUES

- Taste Beer
  - Take “a taste”
  - Make sure it travels
- Fully engage retronasal perception

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OFF-FLAVOR TRAINING

- Control beer vs. spiked beer
  - Base beer selection
- Each spike focuses on one flavor
- Trying to achieve familiarization
  - Identify your **personal perceptions** of spike

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DIACETYL SOURCES

Primary:

- Yeast produce precursor (alpha-acetolactate) during fermentation
- Reduced during maturation
- Improperly managed fermentation/maturation

Secondary:

- Beer spoilage bacteria (Lactobacillus, Pediococcus)
- Dirty draft systems!

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DIACETYL

Common Descriptors:

- Buttery
- Butterscotch
- Popcorn
- "Slick" mouthfeel
- Not caramel (which is a normal malt flavor)

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ISOVALERIC SOURCES

Primary:

- Old/oxidized hops
- Oxidative degradation of alpha acids

Secondary:

- Wild yeasts (e.g., *Brettanomyces*)

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ISOVALERIC

Common Descriptors:

- Cheesy
- Sweat sock
- Gym bag

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CHLOROPHENOL SOURCES

Primary:

- Use of water with chlorine or chloramine

Secondary:

- Present in brewing water
- Use of chlorinated cleaning solutions (e.g., bleach)

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CHLOROPHENOL

Common Descriptors:

- Antiseptic mouthwash
- Medicinal
- Swimming pool

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DAMASCENONE SOURCES

Common Descriptors:

- Oxidized hoppy beer

- "When green things turn brown"

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DAMASCENONE

Common Descriptors:

- Berries
- Cherry
- Artificial grape
- Tobacco
- Black tea

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THANKS FOR COMING!!

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