

## ASBC Workshop: What's the Difference?

### TETRAD SCENARIO

#### Project Background:

Testing new crown cap technology on the bottle line.

#### Test Objective:

Observe the impact the crown caps (or don't) have on the rate of oxidation in your flagship amber ale.

#### Methodology:

After aging the beer for 30 days, thirty two assessors were presented with two sets of two samples (two tests and two controls) and asked to sort the samples in two groups of two based on similarity. No reps were performed. Good sensory practices were used. Care was taken that the samples were served uniformly, sample presentation was balanced, blind coded and randomized, samples were tasted individually in a dedicated sensory space with no additional samples preceding the difference test

#### Data:

19 out of 32 panelists correctly sorted the samples

Comments from the 13 of the 19 that correctly sorted the samples:

Panelist	Sample Pair Selected	Comments
1	Control	some leather, honey and mercaptan.
2	Control	very sweet bread and drains
3	Control	dulled attributes
4	Control	Slightly dulled and astringent
5	Control	Raisins and sherry with caramel
6	Control	Lots of caramel and raisin with some odd sulfur
7	Test	Less caramel and sherry
8	Test	Less mercaptan than the other two
9	Test	Water and thin body
10	Test	dulled attributes
11	Test	more carbonation
12	Test	slight caramel and dull
13	Test	Sour hints

**Results/Conclusions:**

Is there a statistically significant difference between the treatments?    Yes    No

Report the sensory results of this test to the formulation development team by listing one or two key findings.

- 1. \_\_\_\_\_  
\_\_\_\_\_
- 2. \_\_\_\_\_  
\_\_\_\_\_

**Relevance/Impact:**

When you repeated this same test with a heavily dry hopped Imperial IPA no significant difference was observed throughout the shelf life of the beer. What are some possible explanations for why you observed a difference with the Amber but not the Imperial IPA?

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**Next steps:**

What additional testing would you propose to better meet the test objective? Does this data provide enough information to make a decision?

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