

THE STATE OF COLORADO

20 18

# LIQUID ARTS

FIELD TO FOAM FORUM



BUILDING A RESEARCH NETWORK FOR COLORADO BREWERS AND DISTILLERS

HOSTED BY

**COLORADO STATE UNIVERSITY**

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COLLEGE OF AGRICULTURAL SCIENCES | DEPARTMENT OF FOOD SCIENCE AND HUMAN NUTRITION  
DEPARTMENT OF AGRICULTURAL RESOURCE ECONOMICS | VICE PRESIDENT FOR RESEARCH

QUALITY CONTROL AND  
SYSTEM IMPROVEMENT

# Breakout Session Summary

## Highlights

- What indicators do consumers use to judge quality when purchasing a product and after consumption?
- Considerable interest expressed in the creation of a Liquid Art focused database where relevant research can be compiled and made understandable to non-academics.
- How can the Liquid Arts industry communicate quality to the consumer?

## Priorities and research questions for the foundation of a public/private partnership

- Define measures/standards of quality in brewing and distilling.
- Creation of CSU website clearinghouse for Liquid Arts research findings.
- What measurement facilities should be available in-house at all breweries and distilleries, and what are best provided through large, centralized laboratories?
- Develop a system to assist in the interpretation of measurement results and deciding how to act on them.
- Development of a system for obtaining peer feedback on the quality of products.
- How to find a balance between consumer education on beer styles and perception of quality.
- Create resource for spoilage microorganism detection and identification.

### Discussion transcript

The session began with defining the scope of quality as more than meeting minimum legal standards, but rather building a brand. Quality also provides a means to address new health concerns in a scientific fashion. Participants discussed public trust and perception of quality. Unfortunately, not all popular health concerns or trends are based on scientific fact. Industry participants recognized that the public is skeptical of claims and research put out by the industry and stated this as one of the reasons why partnering with a university could prove valuable. Universities are independent third parties that can assist the industry to communicate the science of quality in a way the public can understand and trust.

Academic participants pointed out that the public often struggles to understand research put out by universities and may not trust it any more than industry research. Industry participants expressed interest in a resource that would help them track down relevant scientific papers with summaries. They were also concerned with the trustworthiness of research and how they could verify they were getting good information. A step CSU could take would be to create a centralized, searchable database of research relevant to the Liquid Arts and find a way to make this research understandable to non-academics. Additionally, a webpage with faculty research interests and links to other useful resources provided by the university could be developed so that all of CSU's helpful resources for Liquid Arts can be found at a centralized location. This could be part of a larger extension program for the Liquid Arts.

The geographic scope of quality control was also discussed. For example, should quality control metrics be unique to Colorado or uniform nationwide? Similarly, should measurement facilities be centralized or decentralized? According to industry participants, there currently exists a mixture of both. Larger breweries are able to set up their own lab in-house whereas smaller breweries

lacking these resources can turn to centralized quality measurement facilities provided by the American Society of Brewing Chemists (ASBC).

Unfortunately, lack of awareness about ASBC is an issue and they may be underutilized as a resource, thus participants thought making them more visible should be a priority. Another barrier is that in order to use ASBC equipment you need pay membership fees. An alternative proposed was that CSU could provide equipment for testing and assist in the interpretation of results for a reasonable fee. This could also fall under a Liquid Arts extension program. There was some pushback from some of the industry participants who felt inexpensive options of quality measurements already exist and knowing how to interpret these results is part of making a quality product.

Another topic covered during the discussion was consumer perception of quality. Participants agreed that quality as perceived by the consumer is not quality control, but rather define quality as reliably satisfying consumer expectations. Industry participants pointed out that smaller operations have greater difficulty exactly replicating a product batch-to-batch, but maybe if the product consistently lacks defects it can still be considered a quality product. Industry and academic participants agreed CSU could help develop a channel for peer feedback, mentorship and consultation to improve quality. A quality feedback forum was developed by the Master Brewers Association of the Americas for the purpose of providing anonymous feedback to other brewers and has not been used, so whatever is developed at CSU would need to take a different approach.

A central challenge is communicating quality to the consumer. What the brewer or distiller considers an innovative product may be perceived by the consumer as poor quality based on their prior experiences. This led to a discussion among participants about whether consumers need to be educated on recognizing quality (e.g. style guides, tasting classes) or whether Liquid Art producers should learn from consumers what they consider quality

attributes. General agreement was reached that there needs to be some of both to continue pushing innovation.



## Dotocracy results: 20 session participants, 111 votes

### Overview of topic priority

| Topic  | Rank     |          |
|--|----------|----------|
|  | Academic | Industry |
| Defining quality                                 | 2        | 2        |
| Interpretation and application of QC data        | 4        | 3        |
| Where do you find science and is it trustworthy? | 1        | 1        |
| Set centralized QC standards and in-house setups | 3        | 4        |

### Detailed topic breakdown

#### Defining quality

- Defined by consumer
- Make quality repeatable
- What are the sensory definitions and measurements?
- Differing goals for large and small producers
- Quality standards part of the Colorado brand
- Okay to have variation and creativity within styles
- How to communicate and receive feedback on quality from peers
- Count me in: Alan Windhauser, Kelley Freeman, Cy Bevenger

|                        | Academic | Industry | Total |
|------------------------|----------|----------|-------|
| Breakout session votes | 9        | 24       | 33    |
| Percent                | 8%       | 22%      | 30%   |
| Plenary session votes  | 2        | 11       | 46    |

#### Interpretation and application of QC data

- When to act and when to let be
- Troubleshooting
- Count me in: Kelley Freeman, Alan Windhauser, Cy Bevenger

|                        | Academic | Industry | Total |
|------------------------|----------|----------|-------|
| Breakout session votes | 0        | 27       | 27    |
| Percent                | 0%       | 24%      | 24%   |
| Plenary session votes  | 0        | 4        | 31    |

Where do you find science and is it trustworthy?

- CSU extension
- Research accessibility to industry
- Clearinghouse for researchers
- Validation of information on branding and quality
- Count me in: Kelley Freeman, Cy Bevenger

|                        | Academic | Industry | Total |
|------------------------|----------|----------|-------|
| Breakout session votes | 11       | 27       | 38    |
| Percent                | 10%      | 24%      | 34%   |
| Plenary session votes  | 7        | 11       | 56    |

Set centralized QC standards and in-house setups

- How to encourage QC metrics?
- Access to affordable lab analysis and resources
- Water content
- How to know what is available?
- How to apply and use analysis?
- Standardize metrics and methods
- Count me in: Kelley Freeman

|                        | Academic | Industry | Total |
|------------------------|----------|----------|-------|
| Breakout session votes | 3        | 10       | 13    |
| Percent                | 3%       | 9%       | 12%   |
| Plenary session votes  | 1        | 0        | 14    |



## Breakout session participants and contact information

| Name                | Affiliation                        | Email  |
|---------------------|------------------------------------|--|
| <i>Moderators</i>   |                                    |  |
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