

# TOTAL QUALITY MANAGEMENT (TQM) IMPLEMENTATION CHALLENGES AND BENEFITS AT USV BREWING MICROPRODUCTION WORKSHOP

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## Abstract

Beer is traditionally made with four primary ingredients: a starch source (commonly malted barley), yeast, hops, and water, resulting in a complex beverage containing over 3000 different constituents such as carbohydrates, proteins, ions, microbes, organic acids, and polyphenols. Beer gets much more complex during storage because chemical changes can occur that impact the flavor, fragrance, and appearance. As a result, maintaining the quality of beer throughout its lifespan is a difficult undertaking. The technique used in this work is based on a review of quality management tools and best practices in the brewing sector. This study seeks to synthesize the many ingredients and components of beer, address how ingredients affect the completed product, and describe some of the analytical methods used in Brewing Station to regulate quality and understand the development of chemicals in beer during the brewing process. Recommendations include ensuring that USV Brewing Microproduction Station staff members participate fully, as well as teaching all employees about TQM best practices implementation and involving everyone in TQM implementation.

**Key words:** quality management systems, beer production, HACCP, standards