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Cider Foam Reduction at Downeast Cider House

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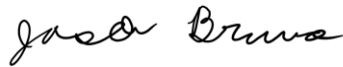
CIDER FOAM REDUCTION AT DOWNEAST CIDER HOUSE

A Major Qualifying Project Report
submitted to the Faculty
of the

WORCESTER POLYTECHNIC INSTITUTE

In partial fulfillment of the requirements for the
Degree of Bachelor of Science

by



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Date: 4/25/2018

Approved:



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This project analyzed the different factors that affected foam formation during the packaging process of Downeast cider. This was done by pouring Downeast cider at different flow rates under different conditions and measuring the amount of foam produced. Foam is formed by the CO₂ bubbles releasing from the cider. Turbulence in the liquid forces the gas bubbles to fall out of solution. Cider was placed in a sealed container and pressurized with CO₂ to push the cider out at a consistent flow rate. Our testing showed that slower flow rates and pouring down the side of the container reduces the amount of foam produced. The slower flow rates and pouring down the side result in less turbulence.

This MQP contains information deemed confidential to the business interest of the industrial sponsor. Please contact Stephen Kmiotek at sjkmiotek@wpi.edu for additional information.