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Final Report

Applied Juice Filtration

At E&J Gallo Winery Modesto, CA

Major Qualifying Project Proposal

submitted to the Faculty

of the

Worcester Polytechnic Institute

in partial fulfillment of the requirements for a

Bachelor of Science Degree in the field of

Chemical Engineering

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Abstract

Filtration is one of the most important operations in the process of making wine. Through this step wine gains clarity and stability. Wine can filter naturally, however in order to make the procedure quicker while maintaining the same high quality, winemakers usually rely on different filtration methods. E & J Gallo Winery has been using cross flow microfiltration for filtering certain wines, however, some components have caused membrane fouling and low filtration rates. With the goal to improve the predictive power of wine filtration, this project utilized literature, chemical engineering principles and experiments performed on a bench scale microfiltration unit to analyze the root causes of decreasing cross flow filterability.

For more information regarding this MQP, please contact Alexander Kopchik at Alexander.Kopchik@ejgallo.com.