Problem Statement & Background

Goals:
- To create a grape wine and an alternative fruit wine that meet the growing demand for locally manufactured products
- To develop a profitable business
- To design a zero discharge minimum energy plant

Objectives:
- Provide unique locally made and sourced wine products for local consumers
- Provide supply of craft wine products for open and expanding market
- Provide innovative fruit alternative wines

Market Analysis

- Target demographic is millennials, who are largest group of consumers in U.S.
- Data shows a 3% increase in wine sales revenue between 2016 – 2017

Impact & Sustainability

Impacts:
- Stimulation of local economy through local employment and use of local products
- Decomposable byproduct waste for minimal negative effect on environment

Sustainability:
- Materials: All fruit products can be obtained locally 6 months out of the year. Winter months grapes can be available from organic farmers in warmer climates.
- Life Cycle: Alcoholic beverage demand is consistent and growing as most millennials have reached legal drinking age

Wine Recipe & Equipment (Lab Experiment)

3 gallons of Welch’s grape juice or alternative fruit juice with no added sugar
1 tsp. yeast nutrients
1 yeast packet (~5g) Saccharomyces bayanus
1 6 gallon PET Carboy

"No added granulated sugar due to the sweetness of juices

Acknowledgements: Troy Tonner, Alyssa Christoffer, & Carol Weaver

Technical Advisor & Instructor: Dr. Martin Okos

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