



BARRELWISE

CASE STUDY

Mission Hill Family Estate



MISSION HILL

Family Estate



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Executive Summary

In March 2020 Mission Hill Family Estate Winery initiated a 58-barrel trial of the BarrelWise Barrel Management System to evaluate it against 3 key criteria:

1. Evaluate potential wine quality improvement in select varietals.
2. Assess ease of use and sanitation aspects of the system.
3. Confirm the system's suitability for existing barrel work processes.

By harvest 2020, the winery **successfully validated the BarrelWise capabilities** against all 3 criteria, before the trial completed in February 2021.

With these results, Mission Hill **expanded adoption of the BarrelWise system to 500** barrels, focusing on premium wine SKUs. The system is also being tested at Cedar Creek, a sister winery.

"At Mission Hill, we prioritize making exciting wines of the highest quality. BarrelWise technology enables our team to explore novel winemaking approaches, better track the state of our barrel ageing wine, while improving efficiency and consistency of the production process. We are excited to work with BarrelWise on developing winemaking tools of the future."

Darryl Brooker – President

Background

Mission Hill Family Estates is a winery based in West Kelowna, British Columbia. It is one of the oldest wineries in Canada, with its top SKUs priced at over \$150 per bottle. Mission Hill manages around 5,000 barrels of wine, which represents around 50% of the total barrel count of the Mark Anthony Group, the winery's parent company.

The BarrelWise trial was agreed after the Mission Hill winemaking team discovered BarrelWise while looking for ways to reduce unwanted exposure to air and microbes of barrel ageing wine. A group of 58 barrels was assigned, split evenly into 29 trial barrels which were worked with the BarrelWise system, and 29 control barrels worked with existing tools and methods. All 58 barrels were sampled and topped every 6 weeks, with sulfites added to maintain ~30ppm group average free SO₂.

Trial Outcomes

1. Wine Quality Improvement

In blind tasting by three Mission Hill winemakers, wine from barrels sealed with BarrelWise bungs clearly outperformed wine in comparable control barrels. Winemakers noted the **increased freshness** of the wine, particularly in the (older) 2016 barrels.

This improvement was due to the sealed barrel environment enabled by the BarrelWise system, which protected the wine from unwanted oxygen and microbial ingress during routine barrel work.

Mission Hill found that this protected in-barrel environment improved the wine quality compared to control barrels, which were opened for routine barrel work tasks.

The BarrelWise Barrel Management System



Sample, top, and add sulfites without opening the barrels

Save time on routine barrel work

Reduce human errors and complexity of barrel management

2. Ease of use and sanitation

Mission Hill employs a highly skilled, experienced cellar crew to conduct barrel work. Although used to traditional processes, they too saw the benefits of simplicity, consistency, and time saving.

When accustomed to using the BarrelWise system, the cellar workers **quickly embraced it as the better barrel work method**. Users found it easy to use and praised the simplicity of the workflow. BarrelWise enabled a reduction of routine wine spillages and subsequent clean up.

"The difference between wine in the BarrelWise trial and control groups was clear in the 2016 barrels. BarrelWise trial barrels retained more freshness."

Corrie Krehbiel – Head Winemaker

3. Suitability for existing barrel work processes

Mission Hill stacks barrels in tight rows. Cellar workers use a forklift to move barrels racks to the floor for topping and sulfite additions, then return them back to the stacks. Their standard process uses aqueous sulfite solution, and topping wine sourced from stainless steel kegs or large drums.

The BarrelWise system enabled workers to execute all necessary work in one barrel touch, saving time.

The flexibility to connect a 60L topping keg worked well for small lots, while connection to 225L stainless steel drums enabled continuous topping of large groups. Sulfite solution mixed into the barrel automatically by the topping wine jet. The 30ft hose was sufficient to cover the barrel workspace. No changes to barrels were necessary to install and use the bungs – the BarrelWise system fit in seamlessly.

The BarrelWise System



- Sample
- Add liquid SO₂
- Top ~1 litre
- Sanitize the system



"Fast and easy!"

Ron – Cellar Hand

Next Steps

The winery is expanding the BarrelWise system across the cellar, starting with premium wine brands, and will shortly initiate testing at a sister winemaking facility Cedar Creek. Collection and tracking of data such as ullage, as well as customized barrel-by-barrel free SO₂ management are next to be evaluated.



Additional resources

[Sandhill Wines Case Study](#)

One winery's experience of reducing barrel room labor by over 50%

[BarrelWise Blog](#)

Articles about winemaking techniques, and winery processes



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