Wine Australia

UVEX & Burro Trial 2024-2026

Bests Wines & Agri Automation

Trial funded through contributions from Wine Australia, Agriculture Victora, Agri Automation and Best's Wines.

UVC For Disease control

Powdery mildew control by damaging disease cells

Requires 4 hours of darkness after treatment

Limited application due to timing requirements

Autonomy enabler as tractor operator is removed for night operation

Trial

- Test efficacy of UVC for disease control
- Field test Burro autonomous robot
- Explore wine quality outcomes
- Determine cost recovery per operation

Operational Plan

Replicated trial area with 4 treatments (2ha)

- **UVC every 7 days**
- **Conventional spray program**
- **UVC/ Spray hybrid**
- **Untreated**

Goal was to treat an additional 60ha in a 7 day rotation

Outcomes

An additional 30ha was treated in a 7 day rotation

Low disease pressure base and limited rainfall saw limited PM development, and no DM or botrytis, even in the untreated areas.

Year 2 will provide an existing disease load for further testing.

Wine outcomes are noticeable, with analysis still to come.

Significant development of Burro system under Australian conditions.

Phase 2

Deployment of an electric mower for additional passes

Pray for rain and higher disease pressure (sorry Ben)

Test impact of UVC light on fruitfulness (bud dissections)

Test Burro performance to aim for 60ha coverage.