

WINE INDUSTRY

Climate RD&E Needs



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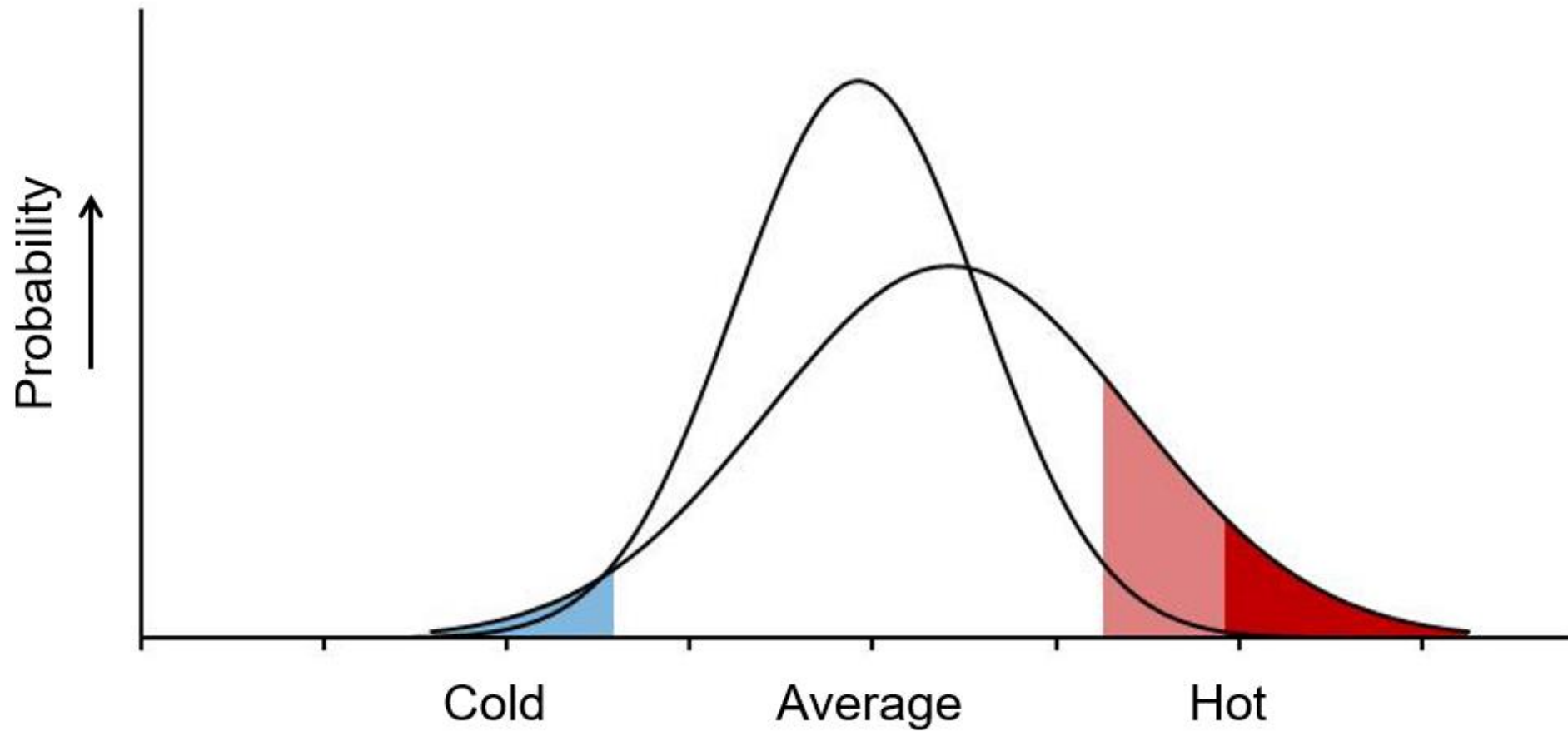
Wine Industry Producers Perspective

- Impact on Productivity
- Impact on Quality
- Directions for Research, Development and Extension



Impact on Productivity

Result of Extremes



Impact on Productivity

Result of Extremes

- Heat – berry loss, dehydration



Impact on Productivity

Result of Extremes

- Cold – frost, flowering



Impact on Productivity

Result of Extremes

- Dry – vigour, fruit weight



Impact on Productivity

Result of Extremes

- Wet – disease



Impact on Quality

Result of Extremes

- Heat – dehydration, flavour, compression



Year



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S A R D I

Impact on Quality

Result of Extremes

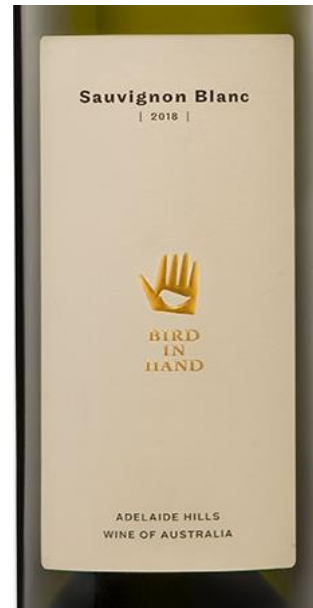
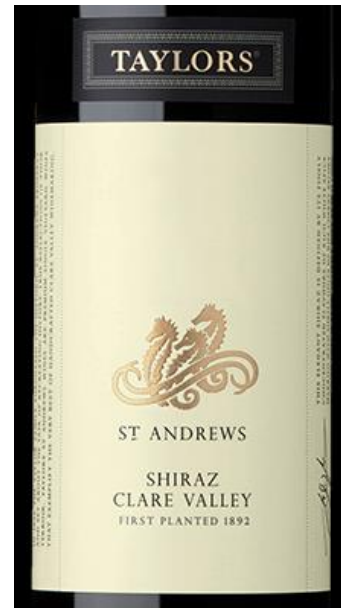
- Wet – spoilage



Impact on Quality

Result of Temperature Shift

- Climate drives Style
- Premium Wines linked to Region
- Regional Shift



Directions for RD&E

Mitigation

The action of reducing the severity, seriousness and painfulness

- Cooling in extreme heat
 - Shade
 - Misting
 - Air movement



Directions for RD&E

Mitigation

The action of reducing the severity, seriousness and painfulness

- Warming in extreme cold
 - Frost prevention
 - Reliable flowering



Directions for RD&E

Mitigation

The action of reducing the severity, seriousness and painfulness

- Efficient water delivery and use
 - Plant level delivery
 - Increase supply
 - Reduced demand



Directions for RD&E

Mitigation

The action of reducing the severity, seriousness and painfulness

- Pest & Disease prevention and control
 - Impact of humidity
 - Sustainable practices



Directions for RD&E

Resilience

The capability to recover quickly from difficulties

- Recovery from Extremes
 - Within season
 - Following season(s)
- Financial and Business Resilience



Directions for RD&E

Adaptation

To become better suited to the environment

- Biological
 - Cultivar selection and breeding
 - Rootstock selection and breeding
- Engineering
 - Trellis structures
 - Irrigation infrastructure
- Consumer Education
 - New varieties, New regions, Non-varietal





THANK YOU

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