Impact of 4-EP and IPMP on Acceptability for Sale of Ontario Riesling Wines

UNIVERSITY of GUELPH

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Introduction



- *Detrimental impact*
- *Prevention mitigates potential impact*
- *Two chemical markers for this study*

Objectives

- *Determine Aromatic Sensory Thresholds*
- *Assist winemakers*



Methods

- *Modified same-different methodology*
- *73 experienced and trained assessors*

Results – 4-EP

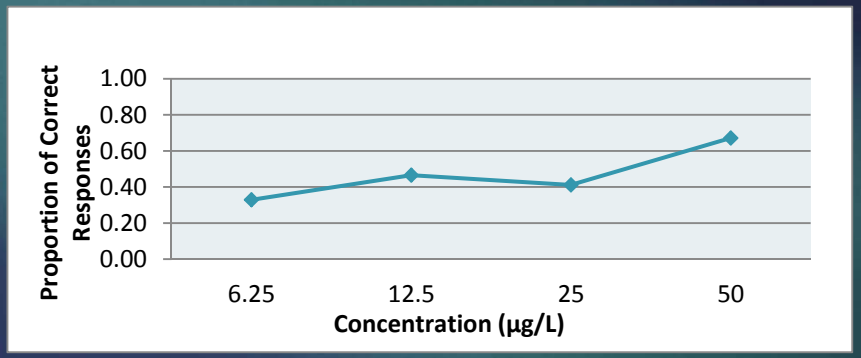

Fig.1 Proportion of assessors (N=73) that correctly identified a difference for wines spiked with increasing concentrations of 4-EP.

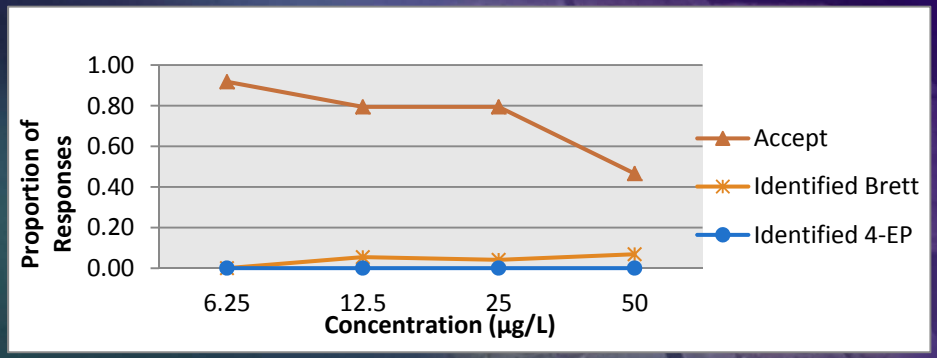

Fig.2 Proportion of assessors (N=73) that accepted wines with increasing concentrations of 4-EP compared with those that were able to correctly identify the fault as 4-EP or Brett.

Table 3. The DT and RT of 4-EP in an Ontario Riesling wine.

Number of Assessors	Compound	Detection Threshold	Rejection Threshold
73	4-EP	28µg/L	48µg/L

Results – IPMP

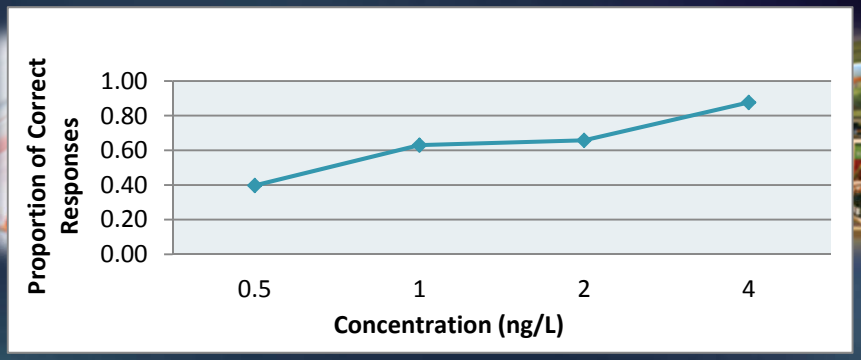

Fig.4 Proportion of assessors (N=73) that correctly identified a difference for wines spiked with increasing concentrations of IPMP.

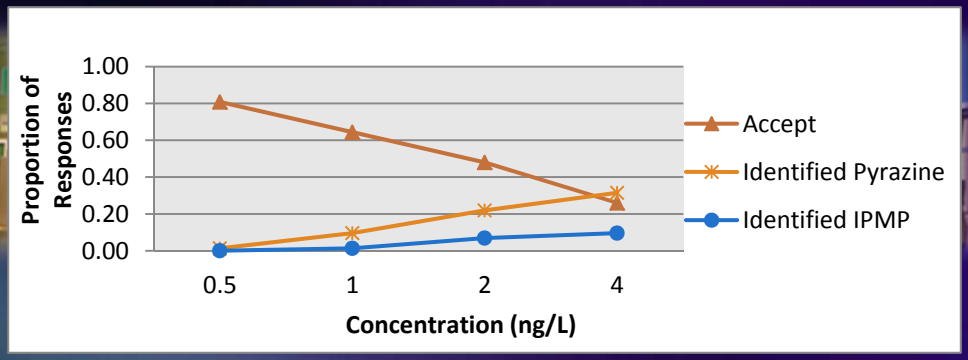

Fig.5 Proportion of assessors (N=73) that accepted wines with increasing concentrations of IPMP compared with those that were able to correctly identify the fault as IPMP or pyrazine.

Table 6. The DT and RT of IPMP in an Ontario Riesling wine.

Number of Assessors	Compound	Detection Threshold	Rejection Threshold
73	IPMP	0.8ng/L	2.2ng/L

Conclusions

- *Development of guidelines*
- *Samples failed although faults not clearly identified*
- *Further research*