A decorative vertical bar on the left side of the slide, featuring a gradient from light pink to white, with several red circles of varying sizes and thin vertical lines.

# **THE PALATE AS AN OBJECTIVE TOOL FOR ASSESSING MOUTHFEEL AND TANNIN**

The chemistry of Tannin and how it correlates to the Texture and Structure of a red wine is frustratingly complex, often with conflicting results from research

- Diagram on the next slide



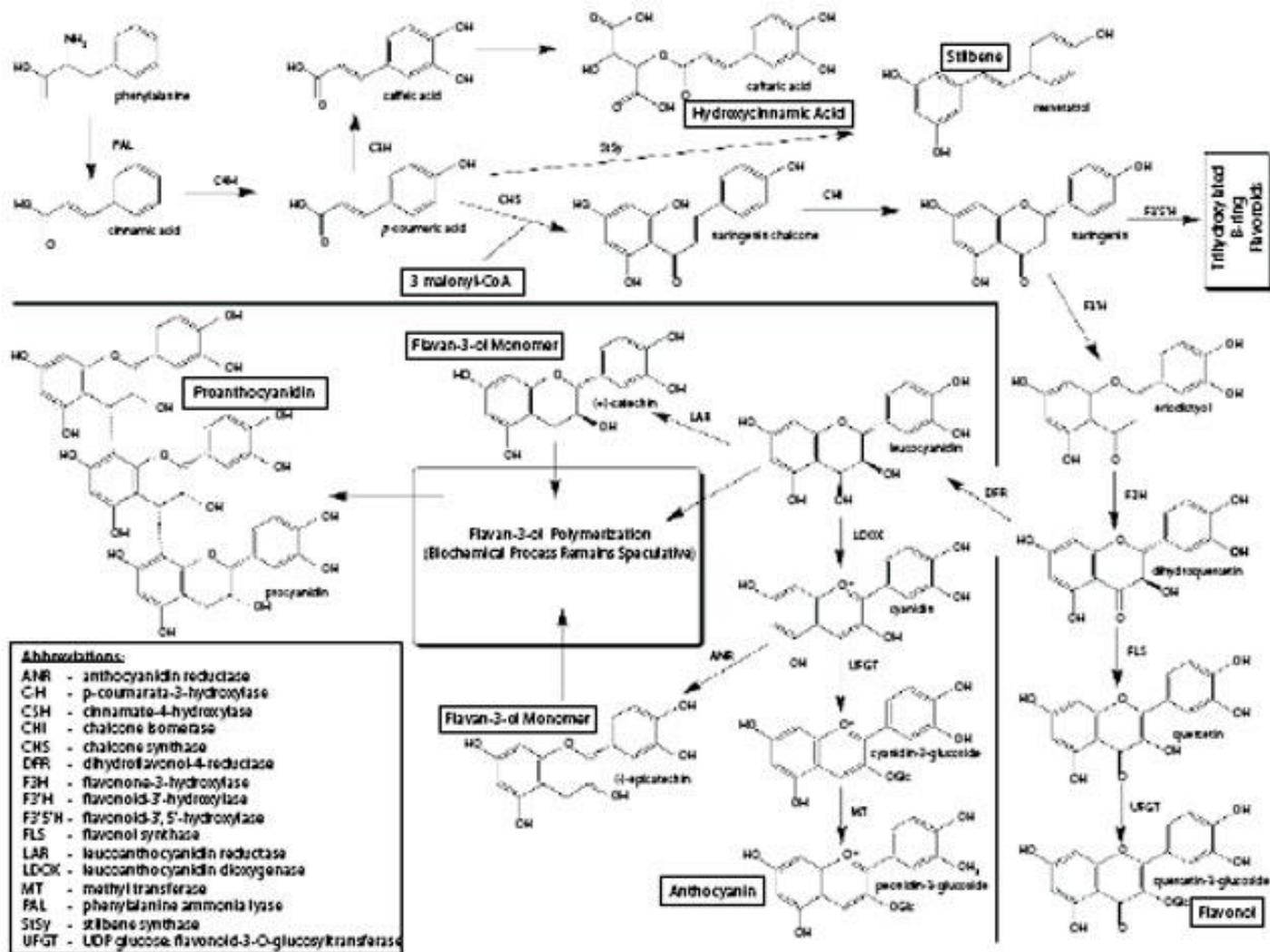


Figure 5. Phenylpropanoid biosynthetic pathway for the major phenolic classes found in wine.

Kennedy, J.A. Grape and wine phenolics: Observations and recent findings. *Cienc. Invest. Agrar.* 2008, 35, 107-120



# THE PALATE IS THE BEST TOOL IN THE WINERY FOR ASSESSING TANNINS – BODY AND STRUCTURE

- Understand how it works
- Know its limitations
- Set the parameters of operation
- Use in the correct conditions
- Record results
- Calibrate regularly
- Look after it!



# GENERALLY AGREED BUT NO DEFINITIVE STUDY ON TANNIN STRUCTURE AND TEXTURE

- Complex, polymerised tannins are sensed as more astringent,
- Shorter chained tannins are sensed more as bitter.
- Moderate sized tannins often give the perception of both bitterness and astringency.



# TANNINS ARE NEVER TASTED IN ISOLATION

- Tannins combine with other components of wines such as polysaccharide, yeast proteins and anthocyanins which can alter their mouthfeel.

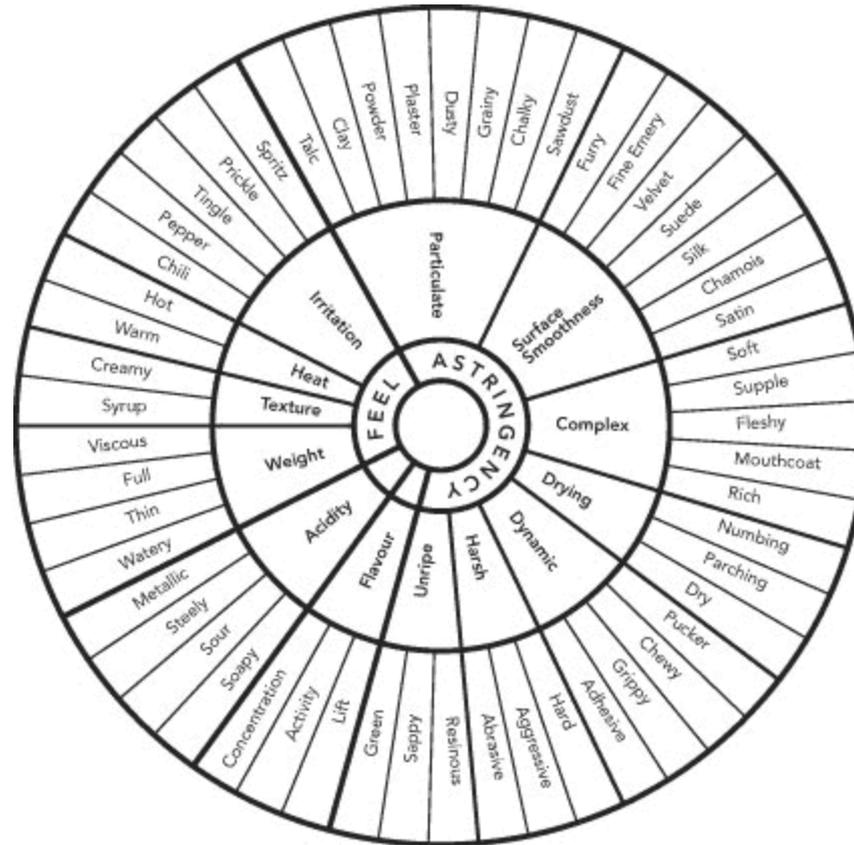


# The Perception of Astringency (Tannin) is altered by

- Sugar or “Sucrosity” in dry wines
- Alcohol concentration
- pH and acidity
- CO<sub>2</sub>
- H<sub>2</sub>S



# LANGUAGE – FORGET MARKETING SPEAK



## Mouth-feel Wheel

Terminology for Communicating the Mouth-feel of Red Wine

Source: Gawel, R, Oberholster, A. and Francis, I.L. (2000)  
Australian Journal of Grape and Wine Research, 6(3), 203-207

(c) Australian Society of Oenology and Viticulture



# TASTING – MY TIPS FOR ASSESSING TEXTURE AND STRUCTURE

- Taste in a rigorously consistent manner.
- Consider the flow of the wine across the palate.
- Think of the shape the wine has in the mouth.
- Always take “meaningful” notes.
- Learn to identify bitterness and the impact of acid.
- Compare tasting notes of the same wine over its life in the cellar and in bottle to learn how structure and texture develop.
- Never forget balance.



# LASTLY

## ○ Goldilocks

- Extraction - Enough tannins to give depth and structure but not so much that the wine is lean, harsh or aggressive, and not so little that the wine is flabby.
- In the cellar – Enough O<sub>2</sub> to help the polymerisation of tannin but not so much to cause oxidation.
- Oak to increase textural richness but not dominant fruit expression.



# TRIAL

- The Additive effect of yeast derived polysaccharides and proteins, but be careful of an unbalanced “stickiness”.
- The subtractive effect of fining

