

CIDER: A Guided Tasting



Chris Negronida

- West Haven Organic Farm
- Black Diamond Cider

Steve Selin

- South Hill Cider

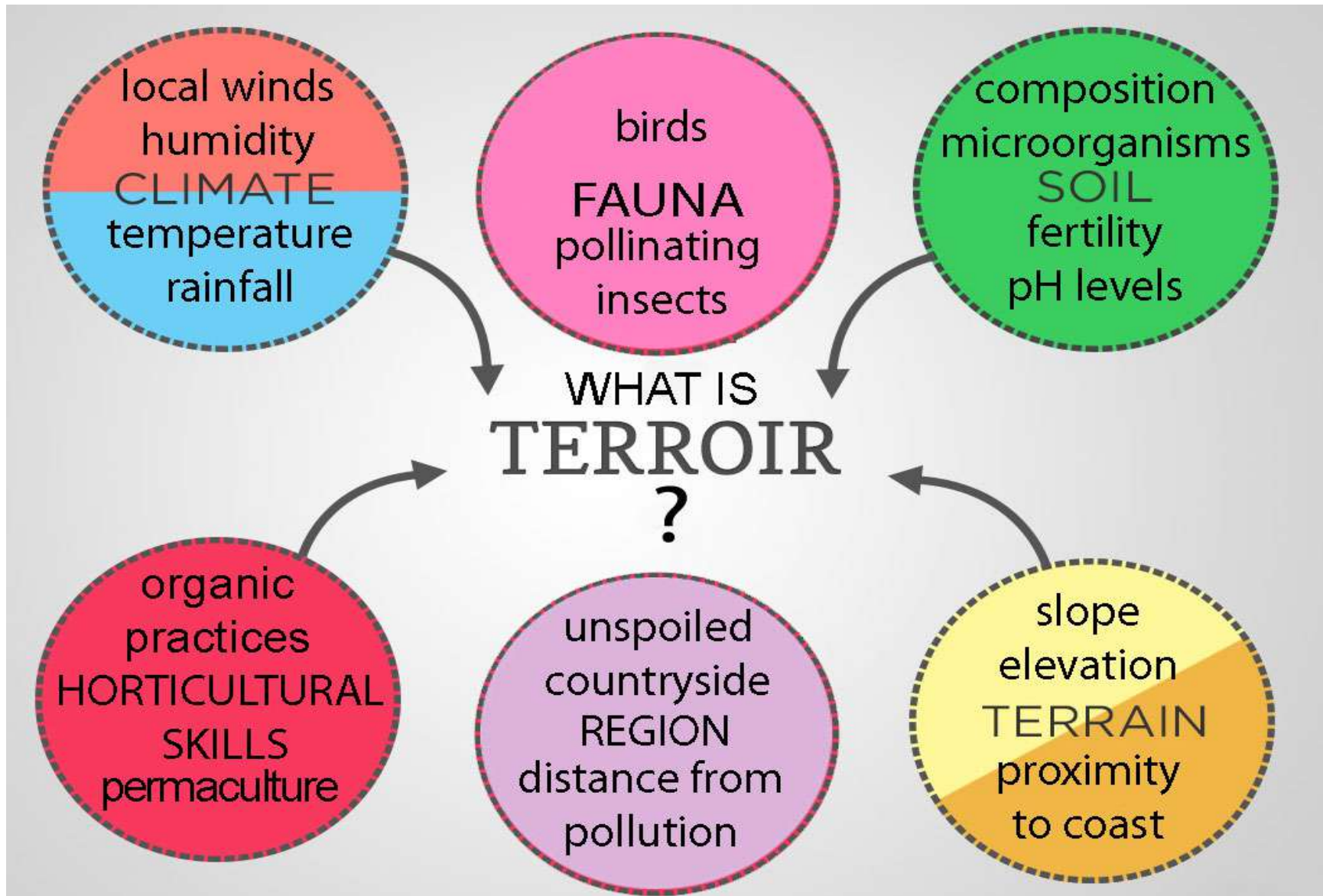


The Apples Make the Cider

- The cider making process starts in the orchard
- Once you understand the way to get from fruit to a fermented beverage you realize that your “beverage manipulation” begins long before the fruit reaches the press.



Growing Cider Apples



Apples for Cider

Common - Plentiful table varieties

Heirloom – Antique, old varieties, generally
Multi purpose.

Crossover – Good for cider and good as table fruit.

Hard cider Apples – Not for eating

Bittersweets
Bittersharps
Sharps



Hard Cider Apples

- **SHARPS:** Tannins < 0.2% TA > 0.45%
- **SWEETS:** Tannins < 0.2% Total Acidity < 0.45%
- **BITTERSWEETS:** Tannins > 0.2% TA < 0.45%
- **BITTERSHARPS:** Tannins > 0.2% TA > 0.45%

(Mainstream dessert apples are all Sweets or Sharps...)

What are Tannins?

- Tannin is a loose term for a whole collection of non-volatile phenolic substances found in apples, grapes and many other fruits, and which provide 'body' to fermented beverages.

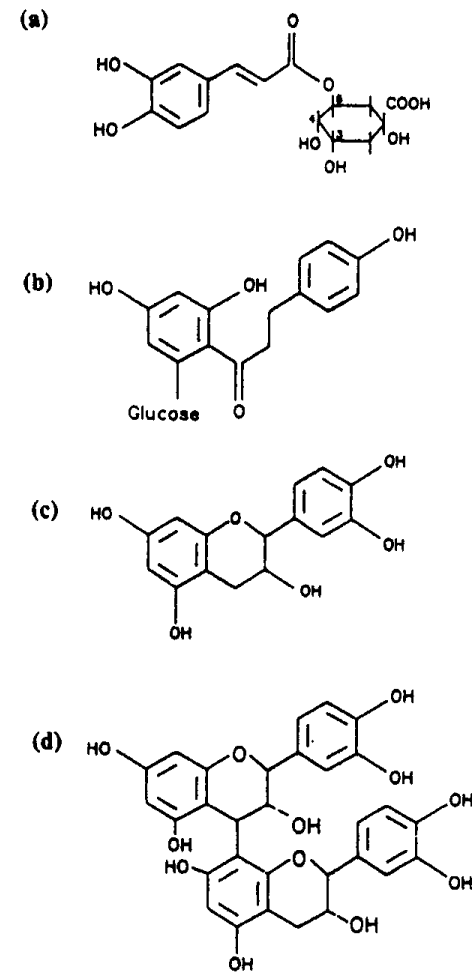


Figure 4-1 Typical phenolic components in cider apples (from Lea, 1991). (a) Chlorogenic acid; (b) phloridzin; (c) (-)-epicatechin; (d) procyanidin B2.

Acid in Cider

- “Sharp” apple varieties contain large quantities of malice acid along with lesser quantities of other acids.
- Acids contribute to cider pH (stability)
- Acids also contribute to the amount of titratable acid (TA) in a cider - a measure of the amount of acid 'anions'
- TA relates pretty well to the 'acid taste' of a cider

Hard Cider is the “Wine” of the Apple

- Brewing Beer is as different of a process to making hard cider as making wine is to brewing beer.
- Making Hard cider (any scale) is generally the same process as making a white wine or a sparkling wine, and cider can be made following typical Red wine techniques.

Where do Flavors Come From?

- Fruit
 - Aroma (fruit, “barn yard”, spice)
 - Tannins
 - Acids
 - Mouthfeel (alcohol, sugar, pectins)
- Microbes
 - Wild fermentation/yeast selection
 - Aroma (Brett, diacetyl, H₂S)
 - Acid (ML, Acetobacter)
- Adjuncts

Where do Flavors Come From?

- Cellar Practices
 - Fermentation Temp
 - Oxidation/anti-oxidation
 - Lees aging/stirring
 - Fruit sweating
 - Filtering
 - Aging (wood, bottle)
 - Sanitizing/rinsing (chlorine)
- Equipment
 - Neutral (stainless steel, glass, new plastic)
 - Barrels
 - Used plastic barrels

Tasting Cider

- Appearance

- Clarity
- Color
- Bubbles

- Aromatics

- Fruity
- Woody
- Herbaceous
- Spicy
- VA (Vinegar)

- Taste

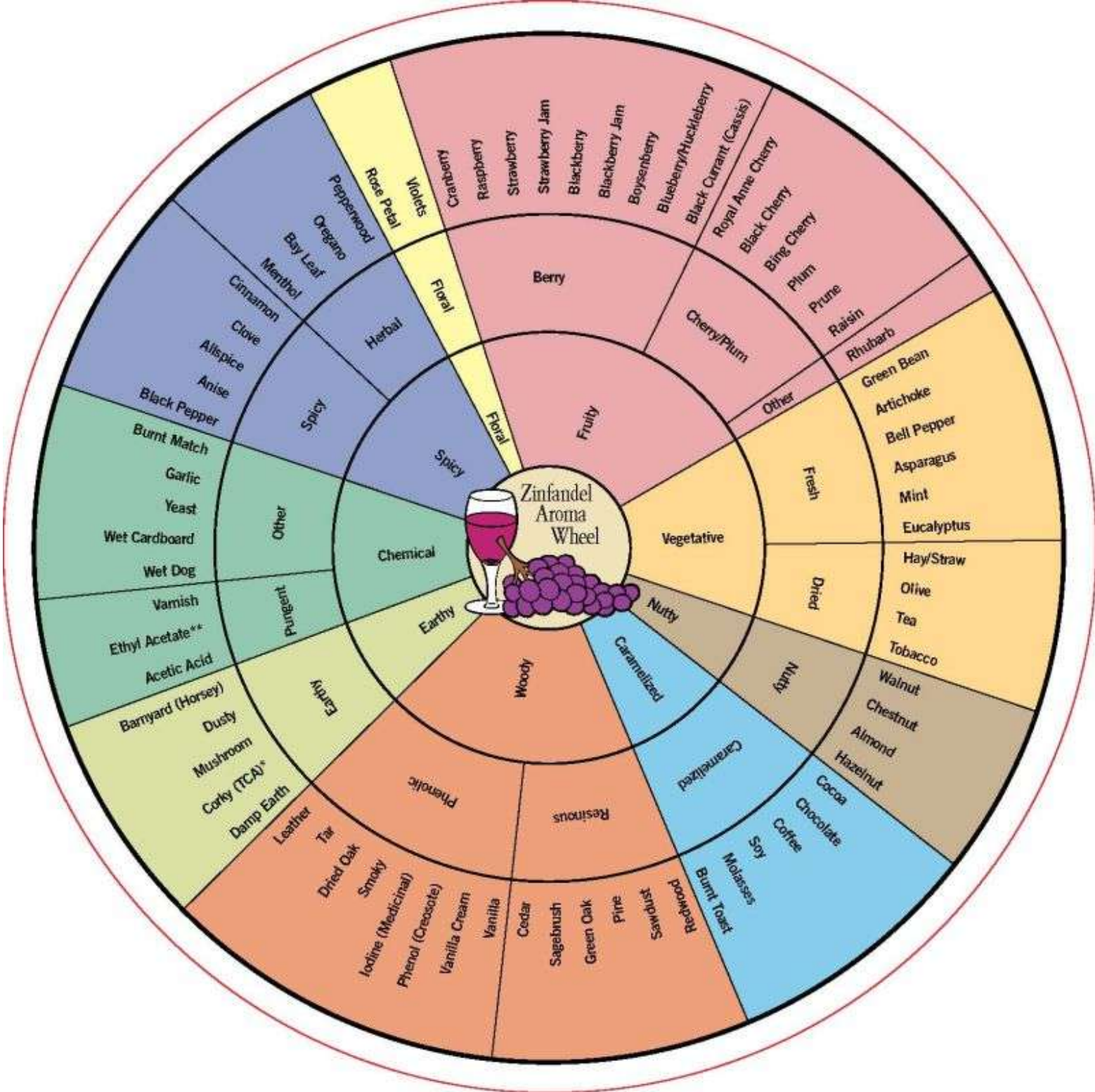
- Sweet/Savory/Salty
- Spicy/Woody

- Mouthfeel

- Bubbles
- Astringent
- Smooth
- Acidity

- Finish

- Length
- Sweet/acid
- Smooth/rough



<u>CODE</u>	<u>ANALYSIS</u>		<u>RESULT</u>
a	pH	3.52	
b	Titrateable Acidity	8.6	g/l
c	Volatile Acidity		g/100ml
d	Soluble Solids (Brix)		% (w/v)
e	Glucose	0.5	g/l
	Fructose	1.9	g/l
	Residual Sugar : sum of glucose and fructose	0.2	% (w/v)
	Alcohol (ethanol)	7.8	% (v/v)
f	Organic Acids: Tartrate	nd	g/l
	Malate	6.6	g/l
	Lactate	nd	g/l
	Acetate	0.1	g/l
g	Sorbate		mg/l
h	Citrate		mg/l
i	Acetaldehyde		mg/l
j	Free SO ₂ (Ripper or HPLC)	< 5.0	mg/l

Questions?

Chris Negronida

Email: cnegronida@gmail.com

Steve Selin

Email:
south.hill.cider@gmail.com

