

The background of the slide features a stylized world map in a dark olive green color, set against a lighter olive green background with a fine vertical line pattern. The map is centered and shows the outlines of continents. Below the map, there is a horizontal band with a diagonal line pattern, and a solid black band at the very bottom.

Grape Yield vs. Quality

Research & Observations

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Subtitled:



Factors affecting quality & yield

- ▶ Vineyard Site
- ▶ Grape varietal & clone
- ▶ Pruning practices and crop thinning
- ▶ Planting density & overall condition
 - Why tons/acre very unreliable
- ▶ Irrigation and nutritional practices

Defining Grape Quality

- ▶ Varietal aroma/flavour
 - herbal, green >>>> jammy
- ▶ Skin tannin quality
 - harsh, astringent >>>>>soft, supple
- ▶ Seed tannin development
- ▶ Brix, total acidity, pH
 - Consider using sugar per berry
- ▶ Fruit condition and berry size

Defining Wine Quality

- ▶ Clean, complex aromas & flavours
- ▶ Fullness & concentrated flavours
- ▶ Refinement, lack of harshness, astringency or bitterness
- ▶ Colour quality (intensity & hue) in reds
- ▶ Long finish

Misleading Generalizations

- ▶ Grape yield inversely related to quality
 - strong varietal variation
 - holds more for cooler climates
 - complex interactions with seasonal weather
- ▶ Old vines produce best wines
 - holds more for “old world”, related to irrigation?
 - famous example: 1973 SLV at 1976 Paris tasting
 - great marketing tool

Varietal Observations (Okanagan)

- ▶ Large Effects from yield changes
 - Pinot Noir, Pinot Blanc, Pinot Gris
 - Gamay Noir
 - Lemberger (aka Blaufrankisch)
 - Merlot, Cab. Franc, Cab. Sauvignon
 - herbaceousness

Varietal Observations (Okanagan)

- ▶ More “flexible” w.r.t. yield changes
 - red hybrids, Baco Noir, Foch
 - Ehrenfelser
 - Chardonnay, esp. for sparkling
 - Gewürztraminer

Determining Optimum Yield

- ▶ Post-harvest meeting with winery
 - varietal intensity of juice
 - fermentation problems, (low N)
 - colour intensity for reds
- ▶ Using additional maturity measurements
 - especially consider “sugar per berry”
- ▶ Observations, esp. “biennial bearing” patterns

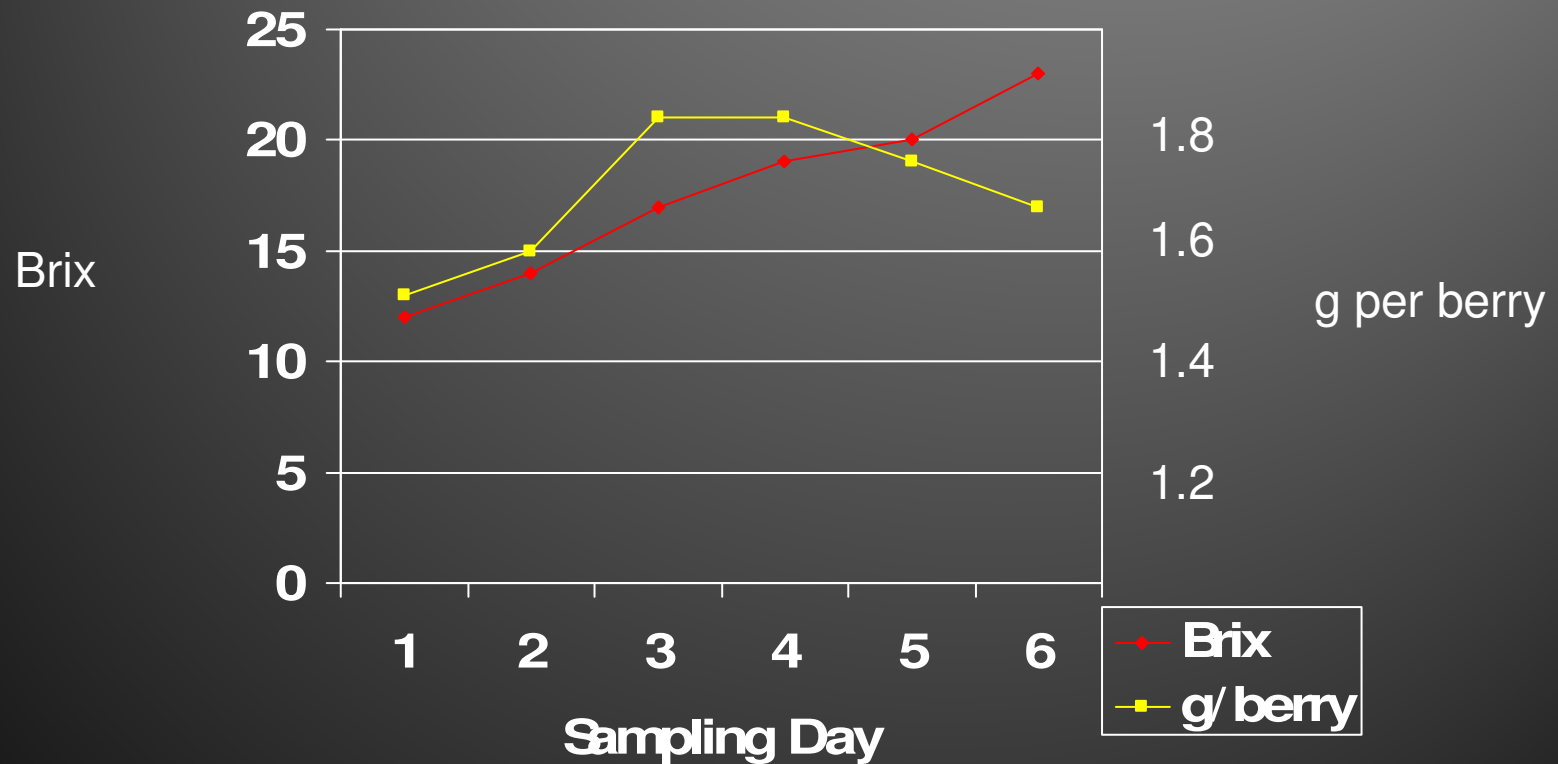
De-throning “King Brix”

- ▶ No indication if plant is making solids vs. dehydration
- ▶ Physiology to make sugar different from that used to make flavour/aroma cmpds.
- ▶ Quest for high brixes has lead to overly “hot”, imbalanced wines
- ▶ Provides false sense of what vines can handle w.r.t. crop load

Using Sugar per Berry as a maturity measurement

- ▶ Take constant # of berries per sample bag or count before weighing
- ▶ Weigh sample bag (grams) and divide by # of berries
- ▶ This gives average weight of berry in grams
- ▶ Determine Brix per usual
- ▶ $(\text{Brix} \times \text{berry wt.}) \div 100 = \text{Sugar grams/berry}$
- ▶ Graph Brix vs. Sugar/Berry

Evaluating Sugar per Berry



Thanks for your attention and to the WIGA for this invitation!

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