QUALITY ASSURANCE SYSTEMS

Where Do We Go From Here?

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Why Do Quality Assurance?

- Eliminate problems in wine
  - Clarity, aroma, taste faults
- Assure positive attributes dominate
  - Aroma and taste components desired
  - Color desired
  - Body components desired
  - Style desired
- Develop future desired product niches

Present Quality Assurance Systems

- Old World (Prescribed)
  - Based on historical "terroir" and styles
  - Standards defined by historical consensus
- Ontario VQA (Mandatory)
  - Varieties by appellation
  - Wines fault-free by consensus standards
- State and local in USA
  - CA appellations, PA Premium Wine Group, Lake Erie Quality Wine Alliance, NJ Quality Alliance, etc.
  - Standards defined by historical consensus

Structural Problems with Wine Quality Assurance Standards

- Wine variability extreme
  - Yearly vintage and "terroir" effects of grapes
  - Relatively "natural" fermentation effects
  - Style and aging variability
  - Geographic and niche market fragmentation

Definition Problems with Wine Quality Assurance Standards

- QA panels not statistically robust

- QA panels lack meaningful quantitative sensory standards

- Wine marketers have appropriated definitions of "quality" without applying statistically robust standards

Benefits of Statistically Robust Quantitative Standards

- Higher accuracy over diverse samples
- Can track starting point and any resulting changes from application of standards
- Can give more accurate advice to winemakers on wine quality parameters
- Can judge effects of standards on both production and marketing by feedback mechanisms

CO Quality Wine Program

- Long range plan promotes systemic pursuit of quality and starts with wine sensory evaluation panels
- Faults Panel
  - Faults panel trained to quantitative sensory standards by Quantitative Descriptive Analysis methodology
- Hedonistic historical consensus sensory panel
  - Use Davis type scale for market description purposes
- Market wines outside assessment region also tested
- Cross test wines with panels
- Faults panel + Hedonistic panel → composite pass or fail
- Confidential grouped anonymous data for statistical evaluation
- Fault-free designation used for marketing status

CO Quality Wine Program

- Market wines will be chemically analyzed
- Consumer surveys will validate effects of standards
- Research and Product Development
  - Panels will perform research on fault combinations to define interactions
  - Product development panels will research attributes, develop relative quantitative standards by wine niche, and test against chemical analysis and consumer surveys
  - Reports contain quality assurance advice for wineries on steps in production of wines and/or recommendations for further chemical analyses

Benefits of CO Quality Wine Program Sensory Faults Training

- QDA training separates and recombines faults for individuals according to quantitative references
  - Clearly defines faults for each individual
- QDA training + reference samples develops more accurate individual sensory apparatus
  - Individuals learn process of separation and definition
  - Process stays in memory permanently, and can be re-referenced by scalar standards
  - Consensus memories of individual aromas are relatively impermanent

Cost of CO Quality Wine Assurance Program

- Sample costs for quality testing panels paid by industry and/or wineries

- Initial fault standards QDA training paid for by trainees

Take-home Lesson

- Quality is the result of a process of constant pursuit of quality assurance at all levels.