What to Test and When

When

Testing by Process Stage

Harvest
- Brix
- pH
- TA
- taste
- tannins

Soak
- Free SO2 - whites
- D-Lactic Acid

Primary Fermentation
- pH
- Nitrogen
- Specific Gravity

- Residual Sugar
- Titratable Acidity
- D-Lactic Acid

Secondary Fermentation - MLF
- pH
- L-Lactic Acid
- Temperature

- Malic Acid
- D-Lactic Acid
- Titratable Acidity

Maturation - Start
- pH
- Free SO2
- TA
- D-Lactic Acid

Bottling
- pH
- Titratable Acidity
- D-Lactic Acid
- Free SO2
- Alcohol

When

Application by Test Type

pH
- harvest - for optimum ripeness (w/ TA, Brix)
- pre-fermentation - to optimize yeast fermentation
- pre-MLF - to optimize growth of desired MLF bacteria
- post-MLF- to determine proper sulfite additions
- maturation - to determine proper sulfite additions
- pre-bottling - to prevent premature/excess aging

Titratable Acidity
- Harvest - for optimum ripeness (w/ pH, Brix)
- post-fermentation (whites) - to adjust for proper taste balance
- post-MLF(reds) - to adjust for proper taste balance
- maturation - to correct for acidity losses during aging
- pre-bottling - to ensure taste balance (don't bottle immediately after adj.)

Residual Sugar
- fermentation - to determine completion of dry wine fermentations

L-Lactic Acid
- MLF - to confirm the start of MLF

Malic Acid
- pre-MLF - to estimate loss of acidity during MLF (w/ dilution of sample)
- MLF - to monitor for stuck MLF
- MLF - to determine completion and time to add sulfite

Free SO2
- to confirm proper addition during cold soak (whites)
- post fermentation (whites) - to confirm proper addition
- post MLF (reds) - to confirm proper addition (>50% becomes bound)
- maturation - to determine need for replacement due to oxidation, binding

D-Lactic Acid
- must - to determine excess contamination
- fermentation - to check for growth of unwanted lactic bacteria, especially with sugar present and a stuck fermentation
- MLF - - to check for growth of unwanted lactic bacteria
- maturation - - to check for growth of unwanted lactic bacteria