

Session 1: How to Determine Fermentation & Aging Techniques

- I. Vineyard Tour—Bud Break 2021
- II. Tasting of Chardonnay 2017 & Dry Riesling 2020
 - A. Varietal Character
 - B. Fermentation
 1. Oak Barrel
 2. Stainless Steel Tank
 - C. Elevage
 1. Sur lie for one year
 2. Minimal time in stainless
- III. Question & Answer



Session 1: How to Determine Fermentation & Aging Techniques

SILVER THREAD 
Wine Sleuth

GRAPES CONTRIBUTE VARIETAL CHARACTER



Hand-harvested Estate Chardonnay



Hand-harvested Riesling from Doyle Fournier Vineyard

FERMENTATION & AGING AROMAS

Primary Aromas	Secondary Aromas	Tertiary Aromas
Youthful, from the grape and primary fermentation	From secondary fermentation and aging in the winery (yeast lees, malolactic fermentation or oak)	A.K.A. “bouquet” or “development”, from bottle age
Tree fruit: apples, pears, quince Citrus fruit Stone fruit Flowers Herbs Vegetal (rhubarb, grass)	Biscuit Yeast Cream Butter Vanilla Coconut Smoke Cedar	Dried fruit Marmalade Nuts Nutmeg, ginger Petrol Earth Mushroom Tea Hay

Glossary of Terms: *Oxford Companion to Wine third ed.; Robinson J.; 2006*

Fermentation Vessel—the container in which alcoholic fermentation takes place, it can vary enormously in size, material and design from an oak barrel to a vast stainless steel tower. **Stainless steel** has the advantage that both cleaning and temperature control are much easier.

Wooden vessels are harder to keep clean, but are traditional and offer natural stabilization/clarification, and maintain a higher fermentation temperature.

Fermentation Temperature—is of critical importance in making good quality wine. Cool fermentations take place more slowly and desirable flavor compounds are retained.

Aroma—volatile compounds which are sensed by the nose, usually referring to a simple smell such as that of a grape or young wine, or those arising from fermentation

Bouquet—complex aromatic compounds which result from extended bottle age, sometimes called tertiary aromas

Elevage—a French term with no direct English equivalent, roughly means “rearing.” Elevage refers to the series of cellar operations that take place between fermentation and bottling.

Lees—dregs or sediment that settle at the bottom of a fermentation vessel, made up of dead yeast cells and other insoluble solids.

Lees Contact/Lees Stirring—popular winemaking practice of leaving newly fermented wine in contact with the fine lees, usually in a small oak barrel and for one year or less. Lees and wine may be mixed or stirred occasionally with a stick. Both techniques improve the mouthfeel and complexity of the wine.

Malolactic Fermentation—a conversion (not literally a fermentation) of malic acid into lactic acid, usually occurring after alcoholic fermentation. Sometimes called secondary fermentation, it is desirable in wines with excessive acidity, or when flavor and complexity are desired, and is known for producing buttery-smelling diacetyl.