

Prof. Karen Goodlad, CSW
Wine & Beverage Management

HMGTT 2402

Spring 2019

Review of Viticulture,
Introduction to Vinification



**NEW YORK CITY
COLLEGE OF
TECHNOLOGY**

Overview

- Attendance
- OpenLab
- Lecture Topic
 - Vinification

What Factors Affect the Taste of Wine?

Photo Credit: <http://coloradowineexperience.com/calling-all-amateur-winemakers/>





What questions
do you have
about viticulture?

Terms to Know

- Viticulture
- Oenology (alt. spelling Enology)
- Botrytis Cinerea (Noble Rot)
- Must
- Chaptalization
- Acidification
- Brix and *Beaume*
- Carbonic Maceration
- Fining and Filtration
- Blend
- Sparkling wine
- Racking
- Crush
- Destem
- Malolactic Fermentation
- Vintage
- *Phylloxera*
- Formula for fermentation
- Cap, punching down the cap
- Barrique
- *Vitis vinifera/labrusca*
- Rosé: Saingee, Maceration

Oenology:

The scientific study of wine & winemaking

- Vinification: the process of making wine
 - Harvest → Sorting
 - Fermentation
 - Yeast stains, oak vs. stainless steel, arrest fermentation
 - Blending
 - Mixing of various grape varieties of different lots
 - Fining & Filtering
 - Aging
 - On wood, in bottle, how long

White Wine Production

Grapes

- White, Pink, Purple, Black

Crush/Destem

Press

- Separate from skin
- Consider: Chilling, Clarification, Barrel, Inert Vessel

Ferment

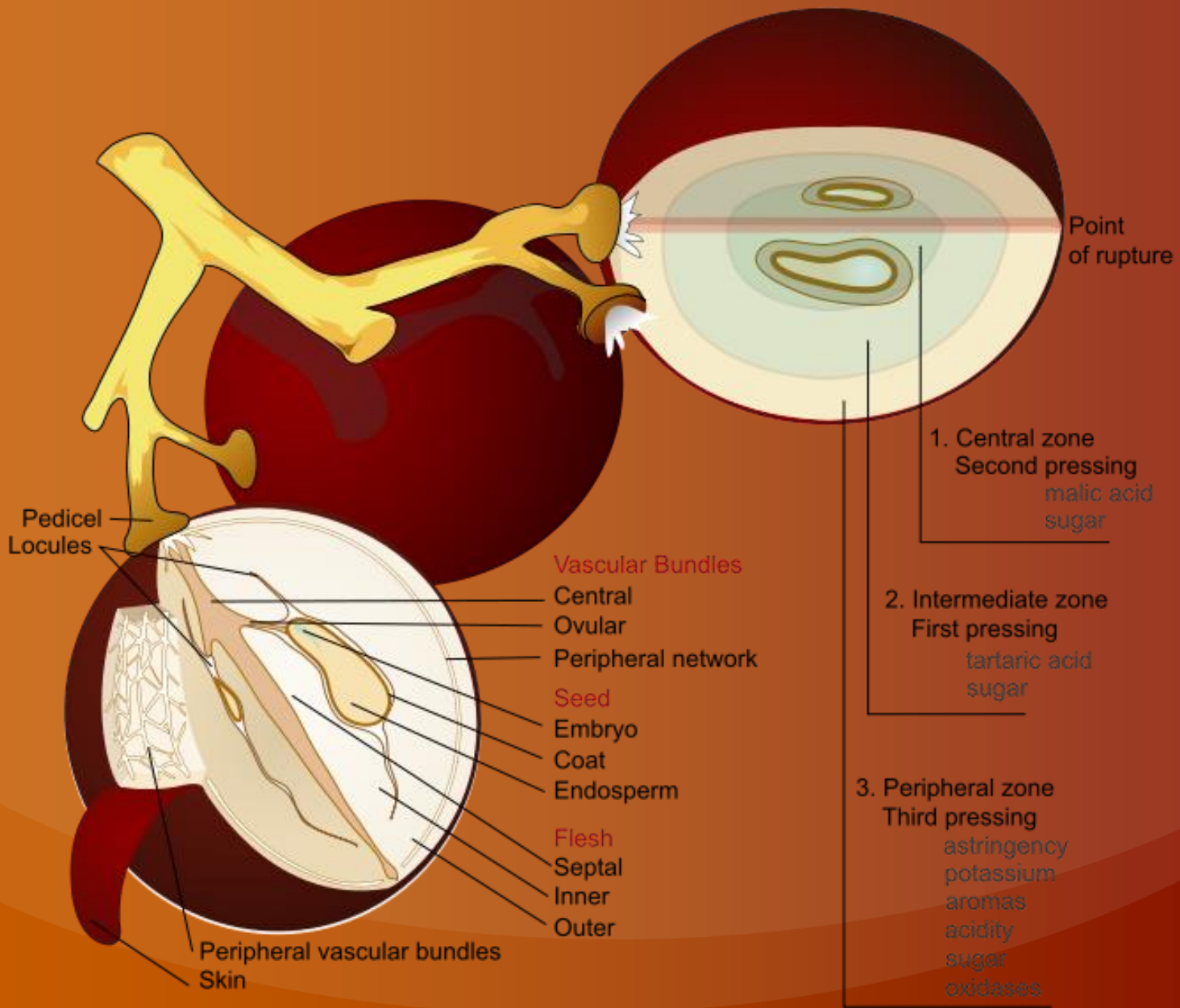
- Consider: Chilling, Barrel, Inert Vessel, Lees Stirring

Age

- Optional, Consider: Racking, Barrel, Inert Vessel

Blend, Can happen at various times

- Grapes, Vintages, Vineyards, Aging environment



What stage of the vine cycle is this grape cluster in?



White Wine Production

Grapes

- White, Pink, Purple, Black

Destem

Press

- Separate from skin
- Consider: Chilling, Clarification, Barrel, Inert Vessel

Ferment

- Consider: Chilling, Barrel, Inert Vessel, Lees Stirring

Age

- Optional, Consider: Racking, Barrel, Inert Vessel,

Blend

- Optional: Grapes, Vintages, Vineyards, Aging environment

② DESTEMMING / CRUSHING



White Wine Production

Grapes

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Destem

Press

- Separate from skin
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Ferment

- Consider: Chilling, Barrel, Inert Vessel, Lees Stirring

Age

- Optional, Consider: Racking, Barrel, Inert Vessel,

Blend

- Optional: Grapes, Vintages, Vineyards, Aging environment



By Robert Pitkin - Flickr: IMG1328, CC BY-SA 2.0,
<https://commons.wikimedia.org/w/index.php?curid=19365700>



White Wine Production

Grapes

- White, Pink, Purple, Black

Destem

Press

- Separate from skin
- Consider: Chilling, Clarification, Barrel, Inert Vessel

Ferment

- **Sugar + Yeast = Carbon Dioxide + Ethanol + Heat**

Age

- Optional, Consider: Racking, Barrel, Inert Vessel,

Blend

- Optional: Grapes, Vintages, Vineyards, Aging environment

Wine Casks



Wine Casks



Gallo Wine Production Facility



What is the Formula for Fermentation?



White Wine Production

Grapes

- White, Pink, Purple, Black

Destem

Press

- Separate from skin
- Consider: Chilling, Clarification, Barrel, Inert Vessel

Ferment

- Sugar + Yeast = Carbon Dioxide + Ethanol + Heat

Age

- Optional, Consider: Racking, Barrel, Inert Vessel,

Blend

- Happens at various stages: Grapes, Vintages, Vineyards, Aging environment





Red Wine Production

Grapes

- Purple, Black

Crush/Destem

Ferment

- Consider: Chilling, Barrel, Inert Vessel

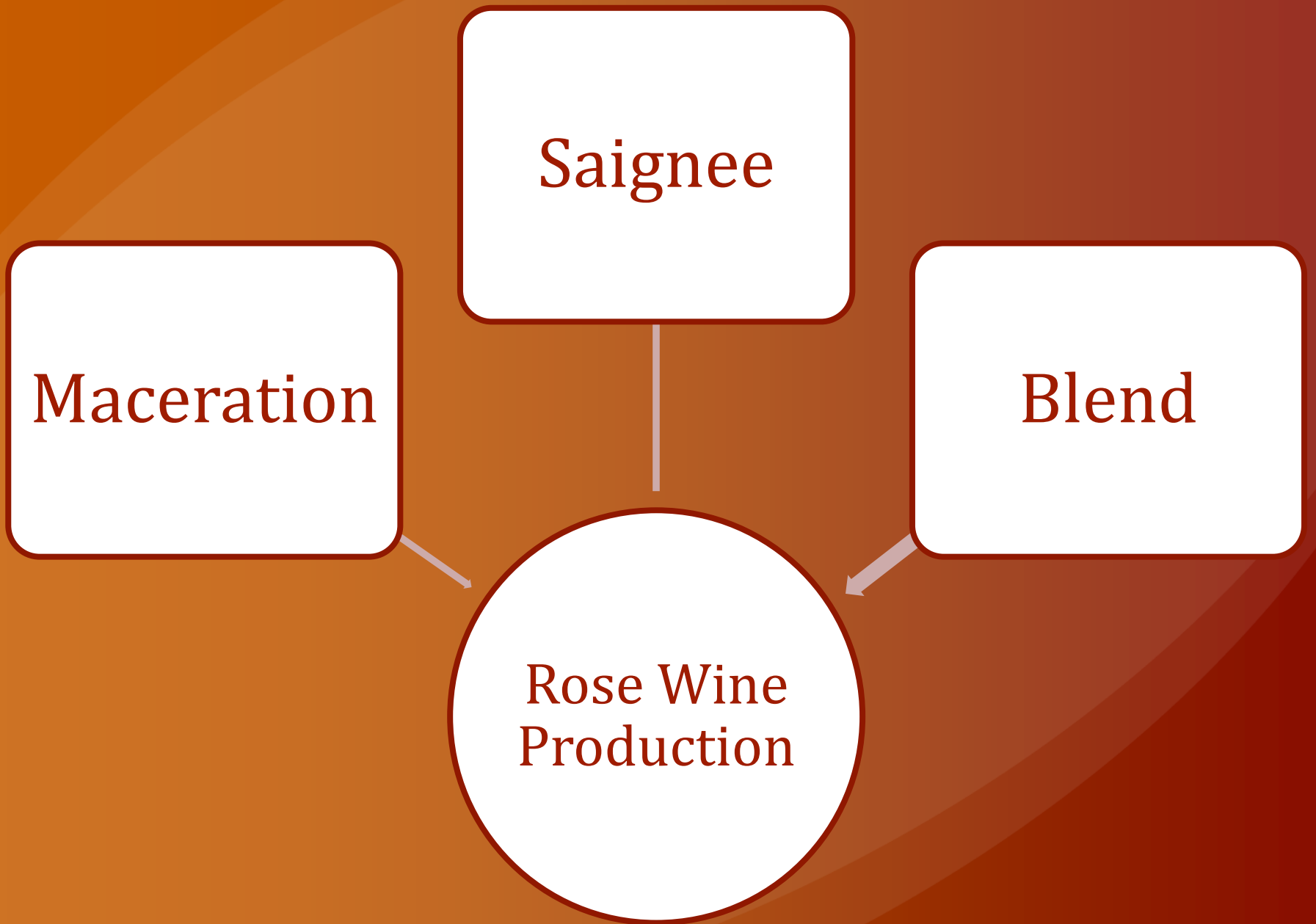
Free Run or Press Wine

Age

- Consider: Barrel, Inert Vessel

Blend

- Grapes, Vintages, Vineyards, Aging Environment



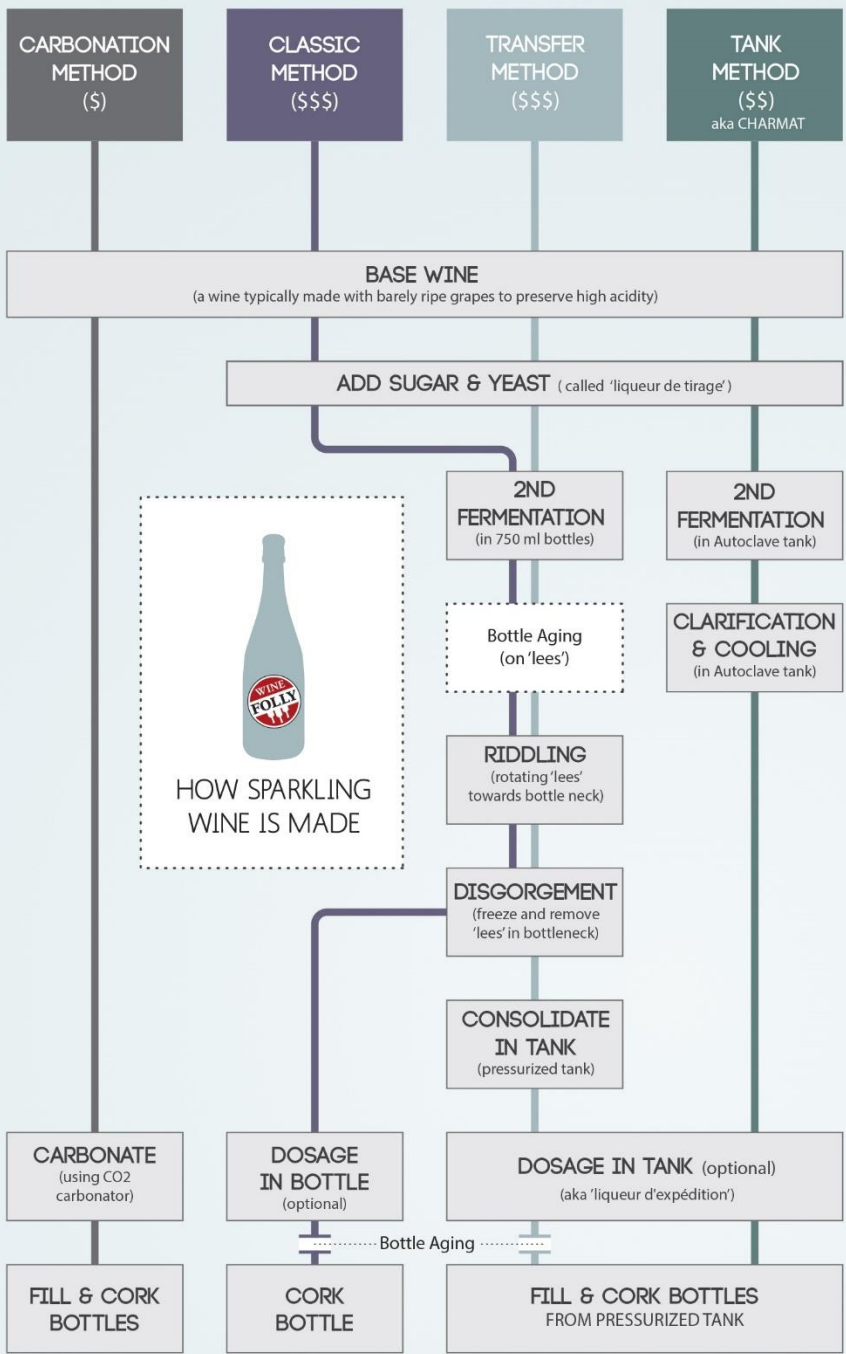
Maceration

Saignee

Blend

**Rose Wine
Production**

Sparkling Wine Production



CRÉMANT

METODO CLASSICO

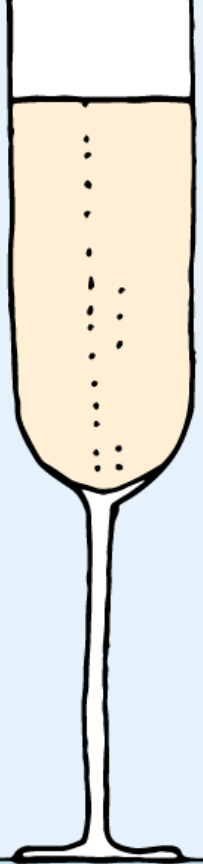
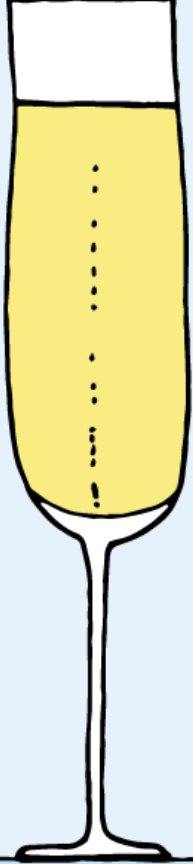
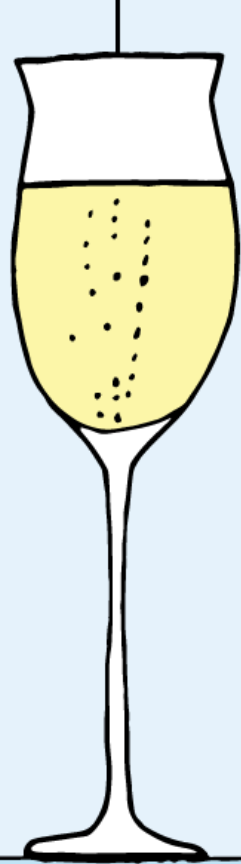
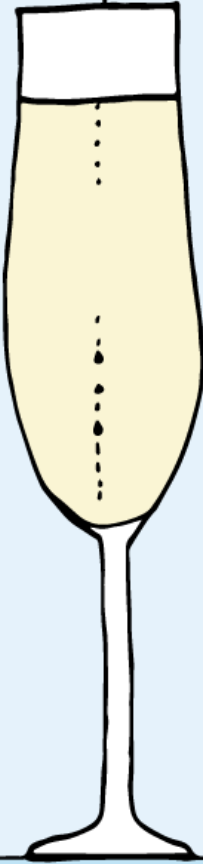
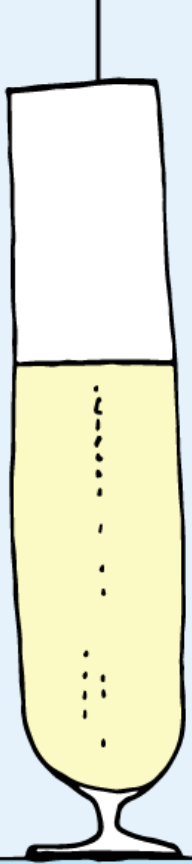
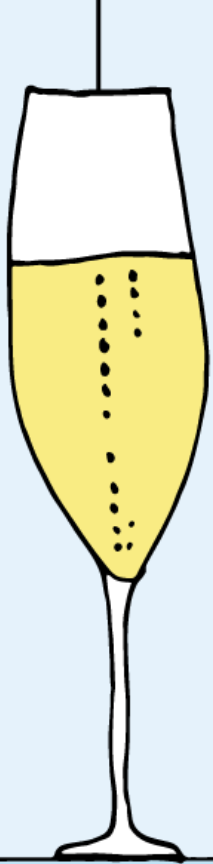
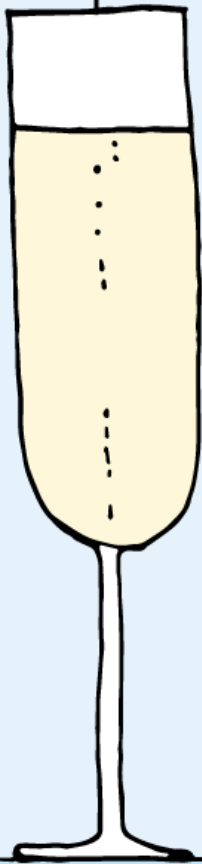
TRADITIONAL METHOD

CAVA

CAPE CLASSIQUE

ESPUMANTE

SEKT



FRANCE

ITALY

USA, ETC

SPAIN

SOUTH AFRICA

PORTUGAL

GERMANY &
AUSTRIA

Carbonic Maceration (Whole Berry Fermentation)

Add Whole Clusters of Grapes to a Container

- White, Pink, Purple, Black

Ferment

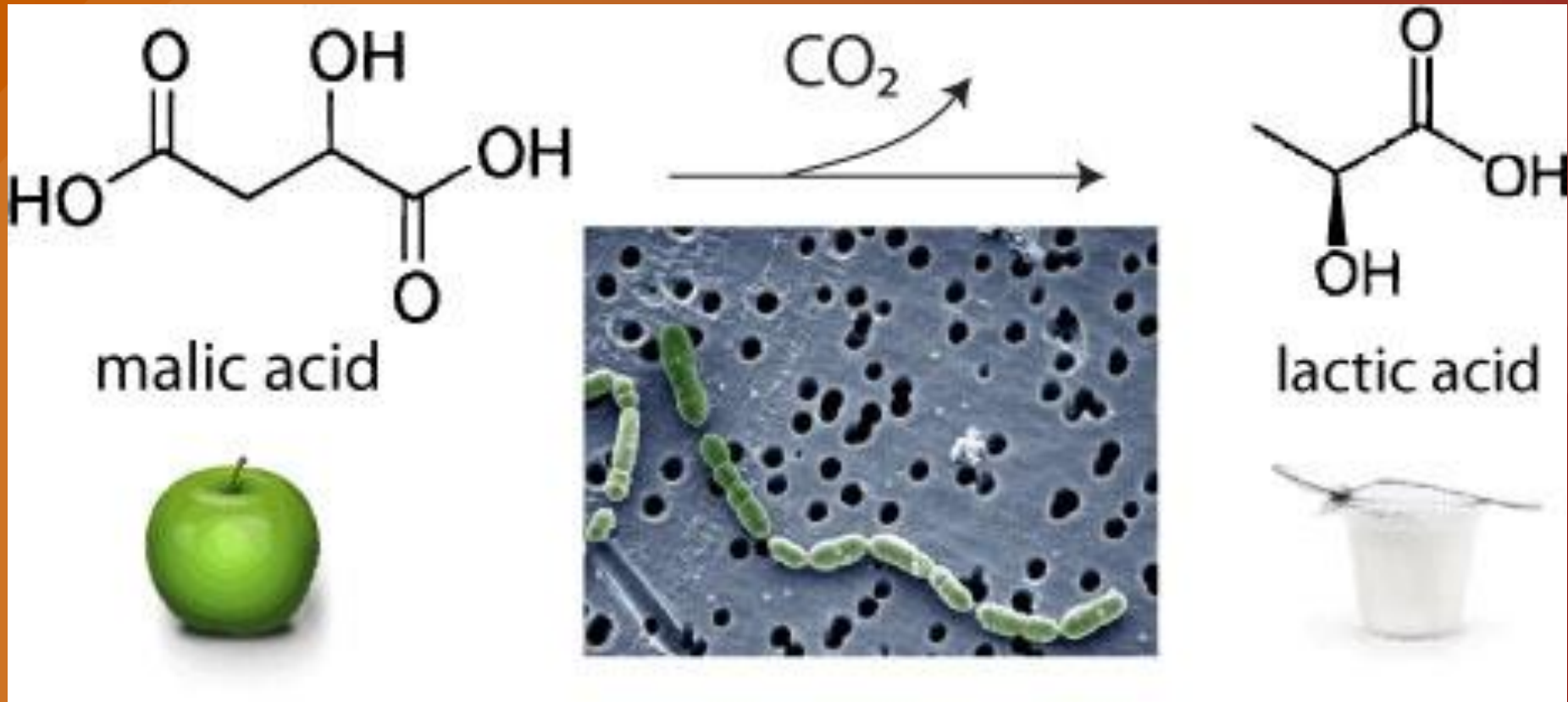
- Grapes at bottom are crushed by weight

Press

Filter

Bottle

Malolactic Fermentation



What Considerations do Enologists Make in Regard to Fermentation?

Until we meet again

- Join the OpenLab and our course site.
- Week 3
 - Quiz, Viticulture and Vinification
 - EU Regulations, French White Wine
 - Read: Chapter 8, 9, 21