The making of Sherry

A combination of...

From grapes into Sherry:
A long decision-making process

Blends
(Optional)

Bottling

Fortification
- 15% vol.
- 17% vol.

BLENDS

BOTTLING

ALCOHOL

CRIANZA

HARVEST

FERMENT

Ageing
- Biological
- Oxidative

Harvest
- Grape variety
- Fresh/over-ripe

Fermentation
- Complete
- Partial

The diversity of Sherry

dry

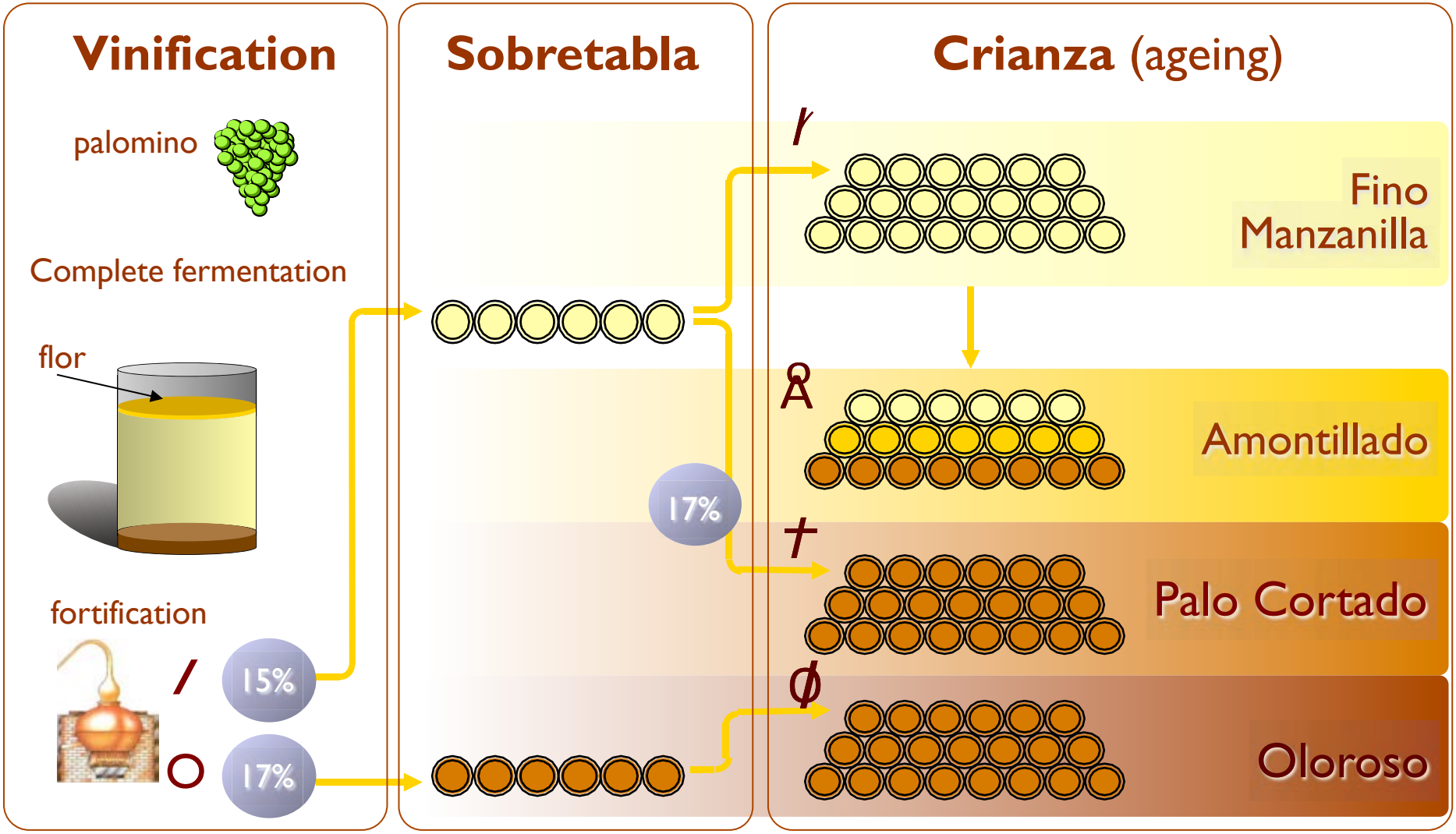
1. Vinos Generosos — **dry**

2. Vinos Dulces Naturales — **sweet**

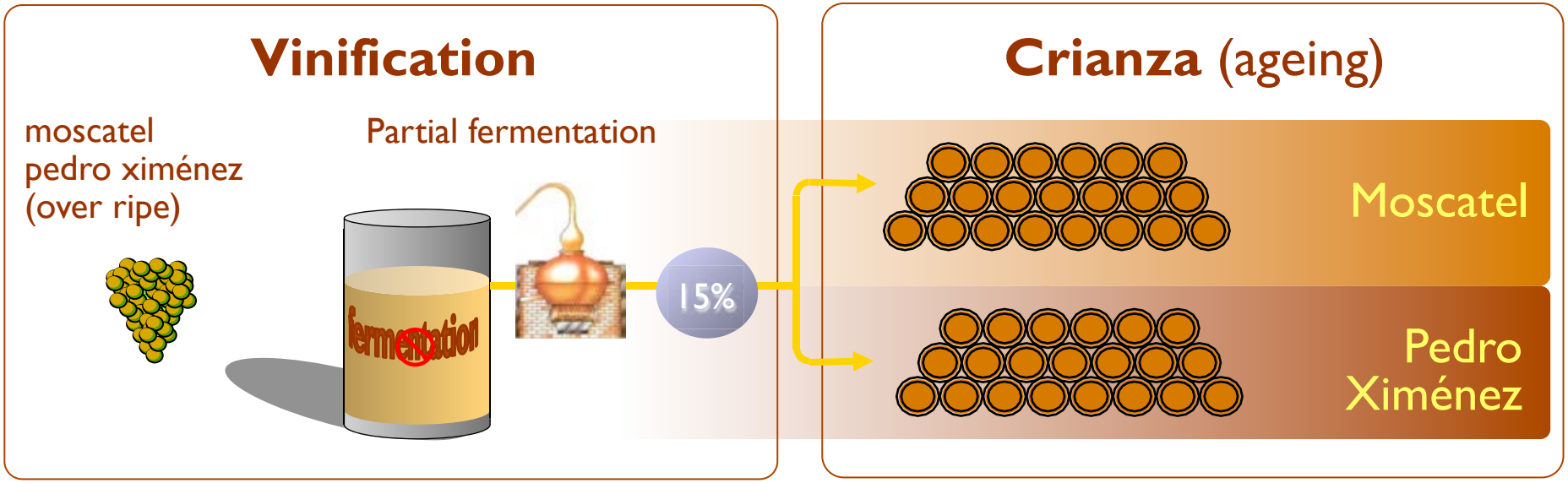
3. Vinos Generosos de Licor — **blends**

sweet

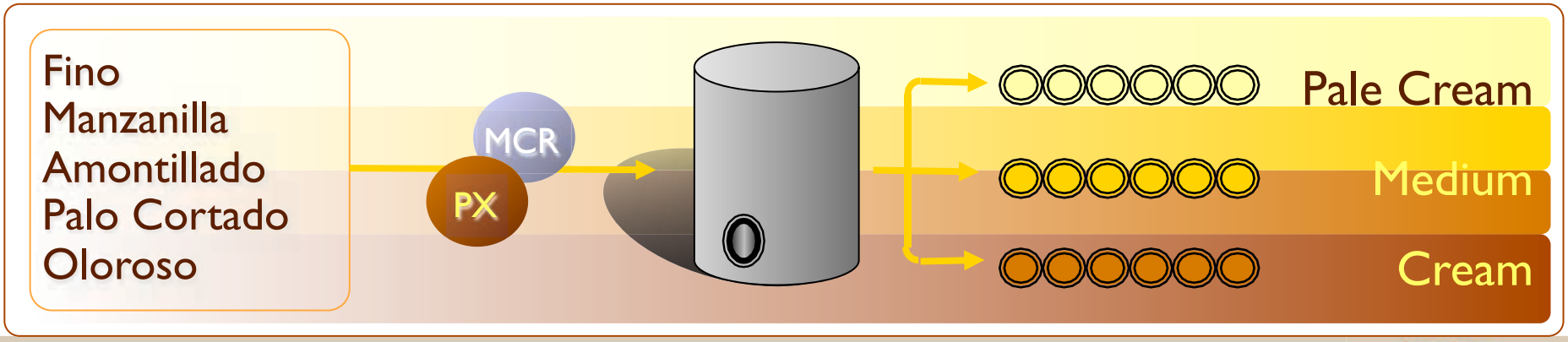
Production scheme for dry sherries



Production scheme for sweet sherries



"Cabeceos" (blends) – vinos generosos de licor



Vinification.
The *Flor*

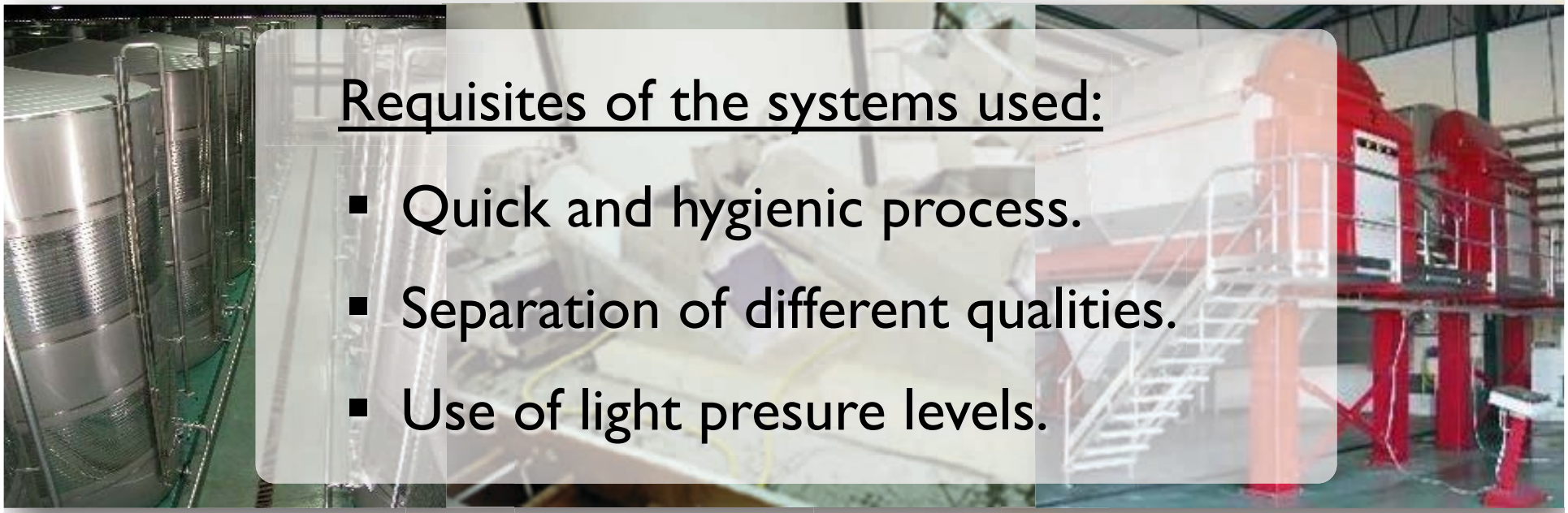
Wine-making. From grapes into wine

1. pressing of the grapes
2. classification of the musts
3. alcoholic fermentation

base wine
(mosto)

Dry

1. Different pressing systems

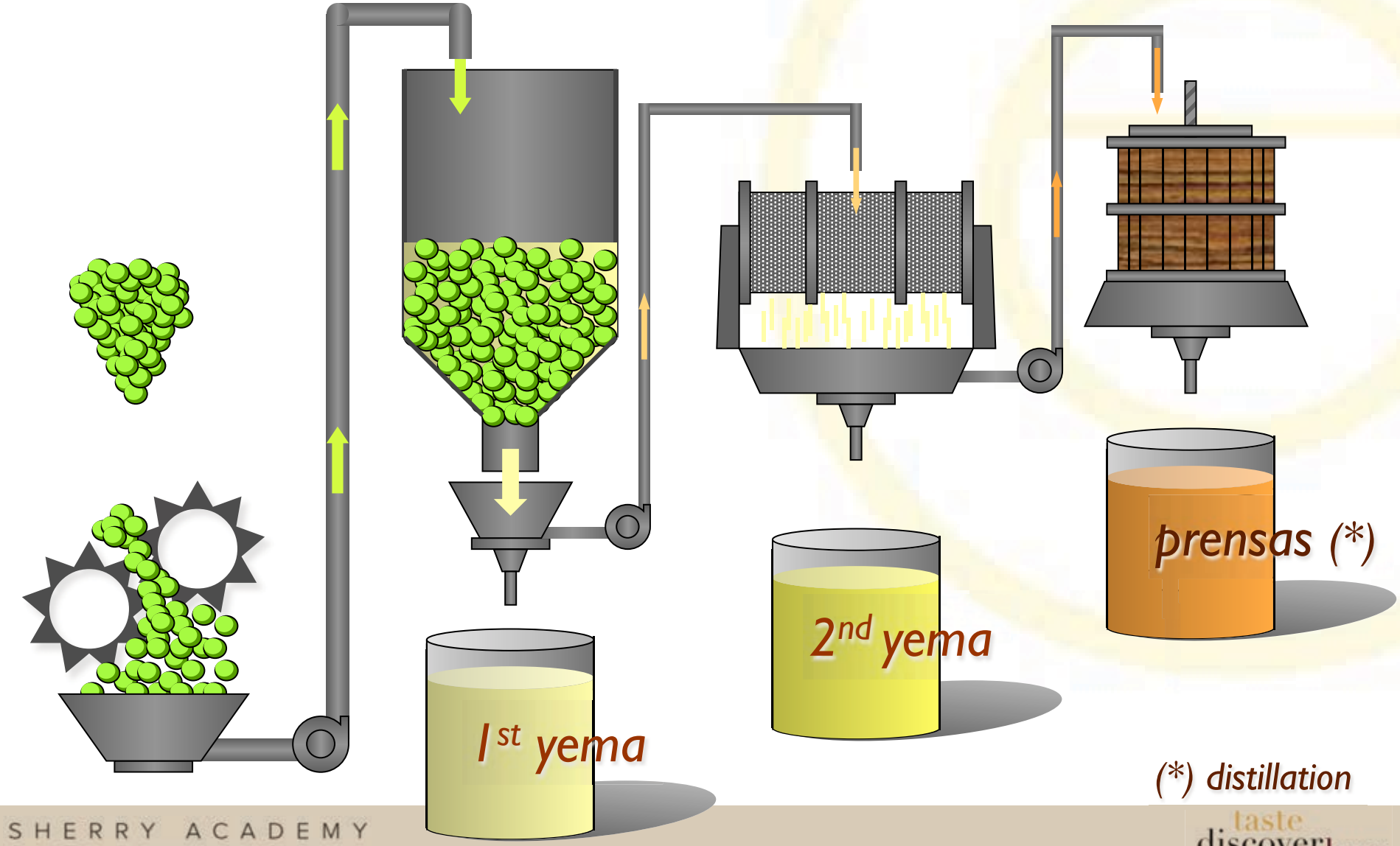


Requisites of the systems used:

- Quick and hygienic process.
- Separation of different qualities.
- Use of light presure levels.

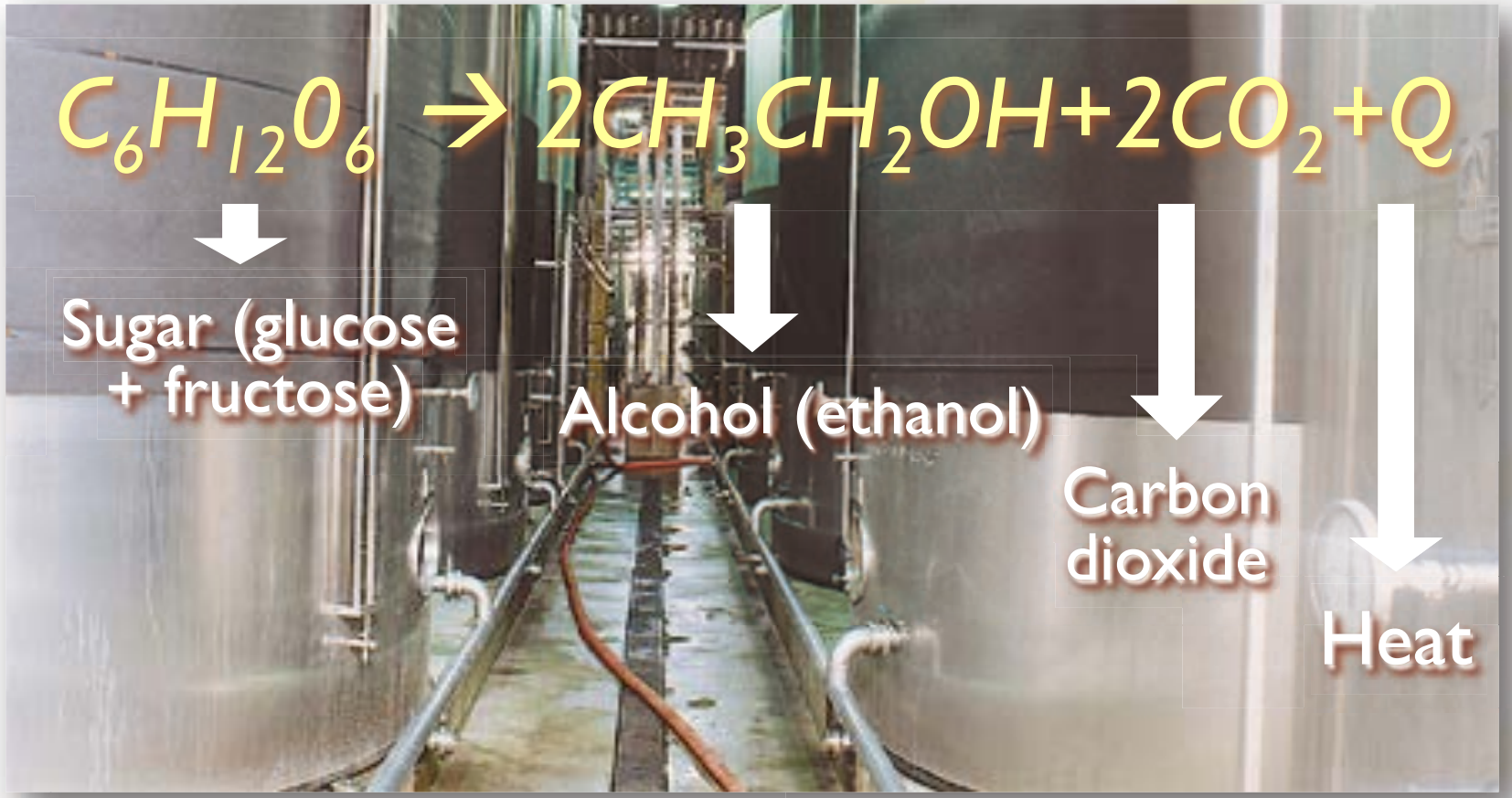
Legal limitation of 70 litres
per 100 kilos of grapes

2. Classification of the musts



(*) distillation

3. Alcoholic fermentation

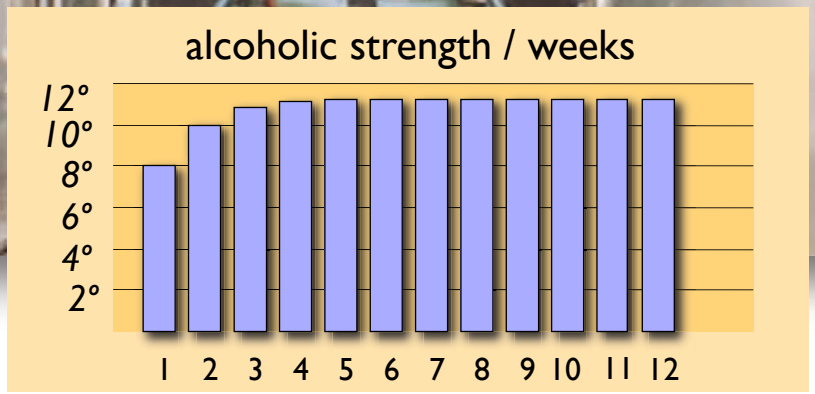


3. Alcoholic fermentation

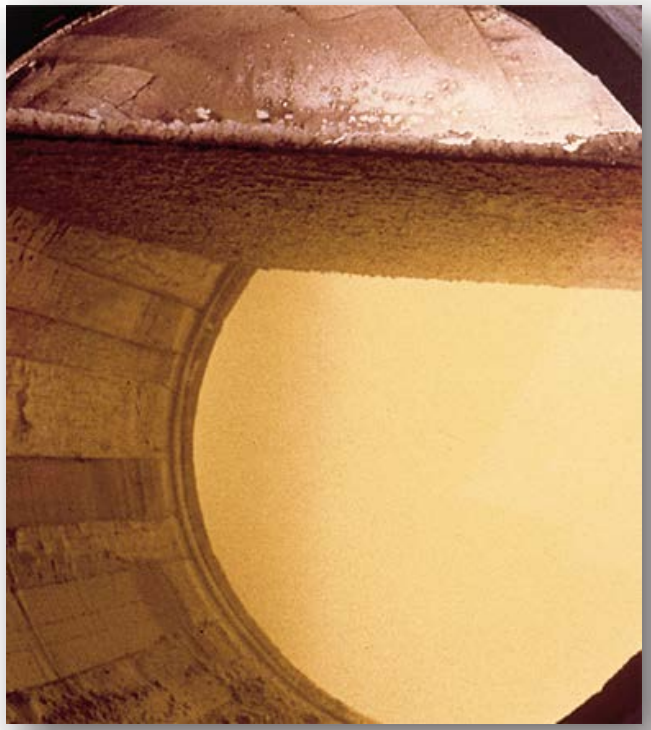
- Use of stainless steel.
- Temperature control.

22°-26°C

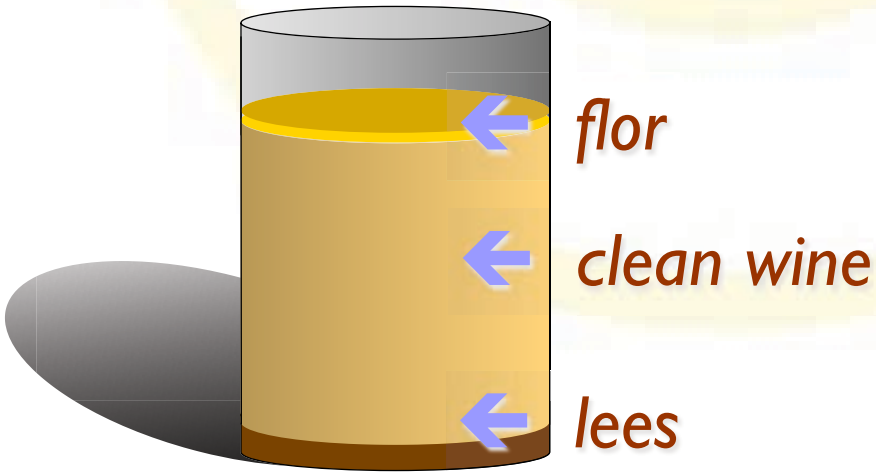
- *Piés de cuba* – selection of specific local yeasts.
- Two different phases in the process:
  - fast fermentation
  - slow fermentation



The base wine

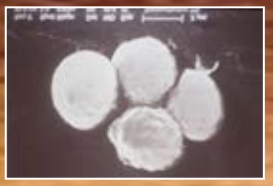


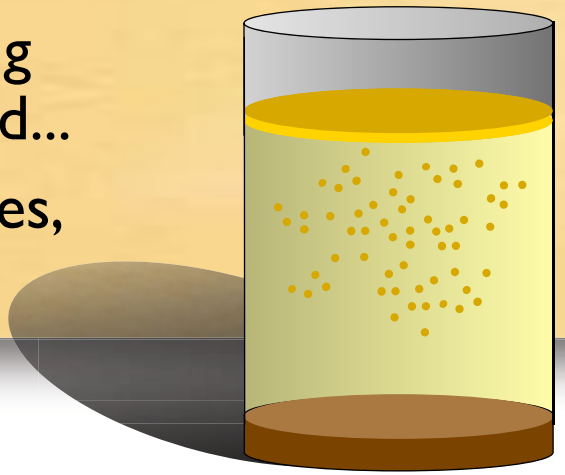
- End of November - "deslío".
- Dry white wine.
- 11° to 12,5° alcohol.
- Spontaneous development of the "flor".



Flor – the key to Sherry wines

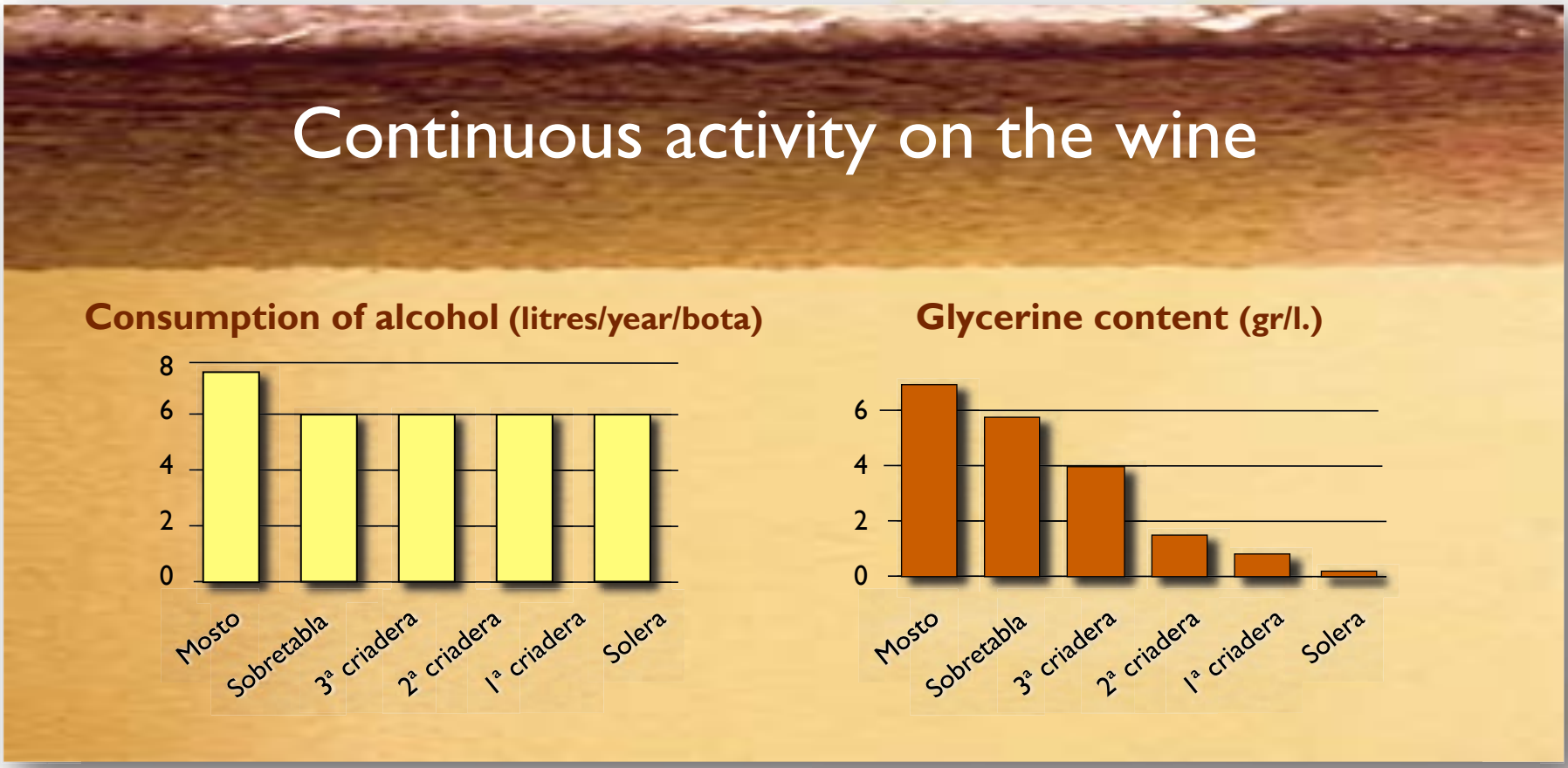
- Film of natural (local) yeasts – different strains of *saccharomyces*.
- Protects the wine from oxidation.
- Continuous interation with the wine:
  - consumption of alcohol, dissolved oxygen, remaining sugars, glycerine, acetic acid...
  - production of acetaldehydes, carbon dioxide...





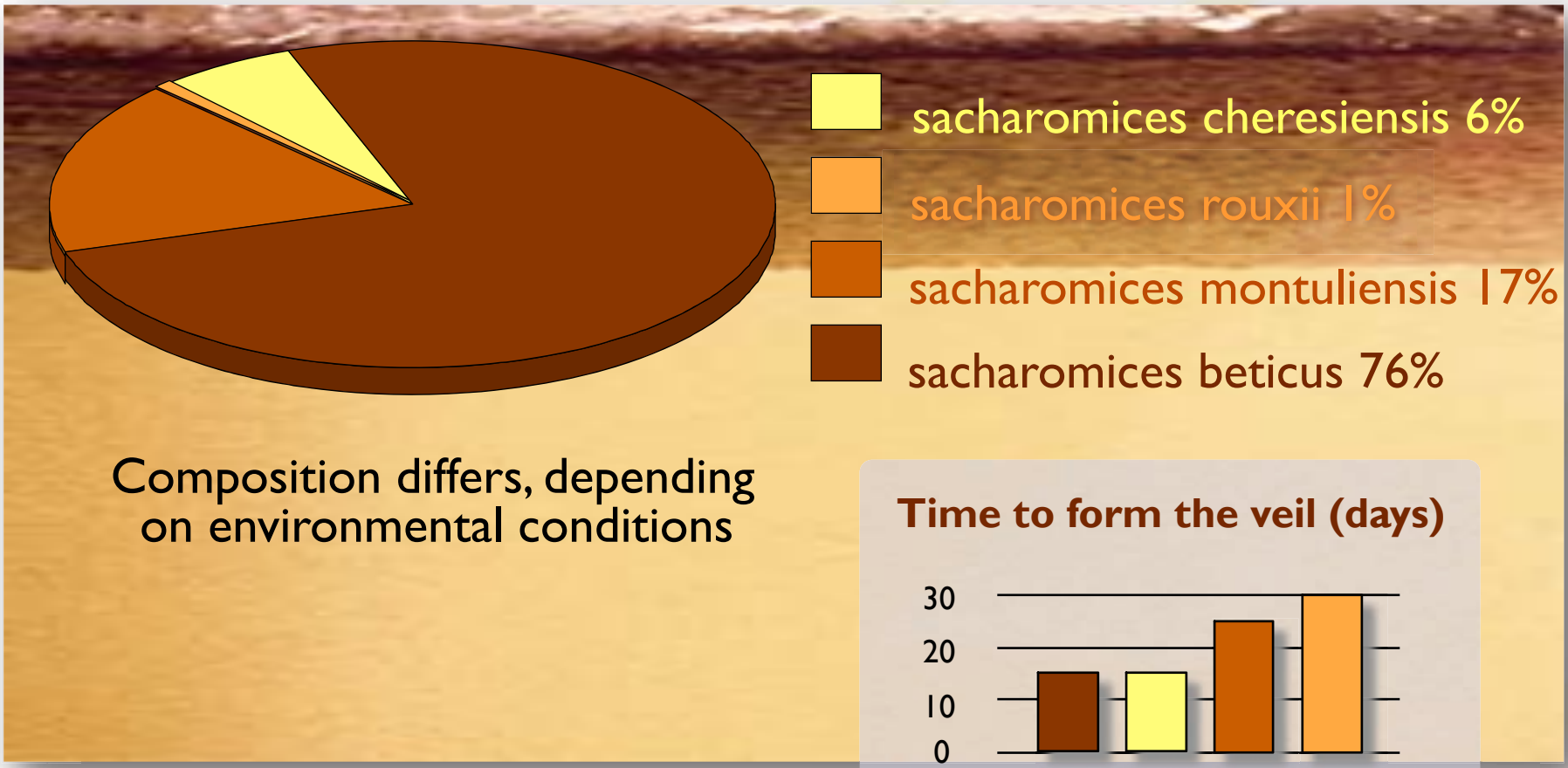
What do we know about flor?

Continuous activity on the wine

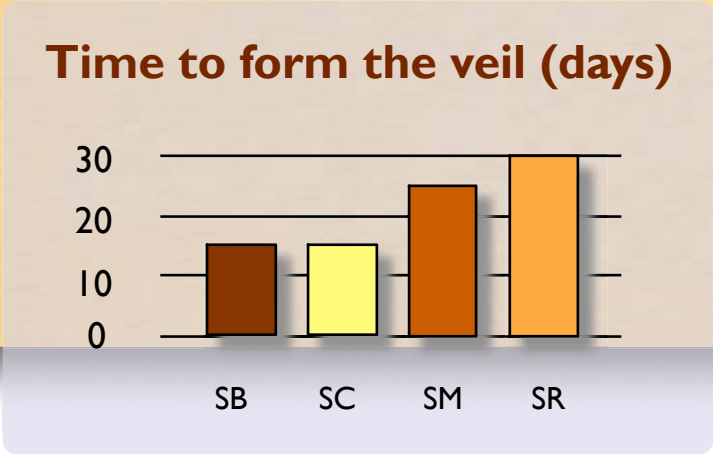


Note: figures corresponding to a specific case in a Jerez bodega, monitored by the University of Cádiz.

What do we know about flor? (2)

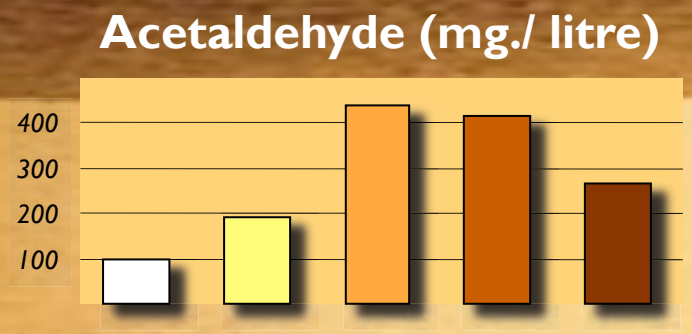


Composition differs, depending on environmental conditions

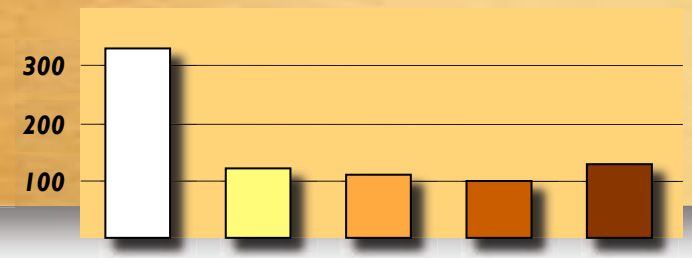


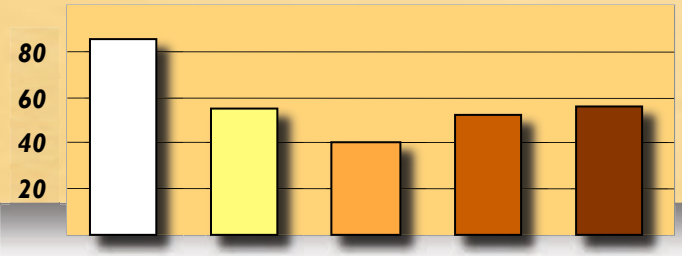
What do we know about flor? (3)

Evolution of some key wine elements in a year



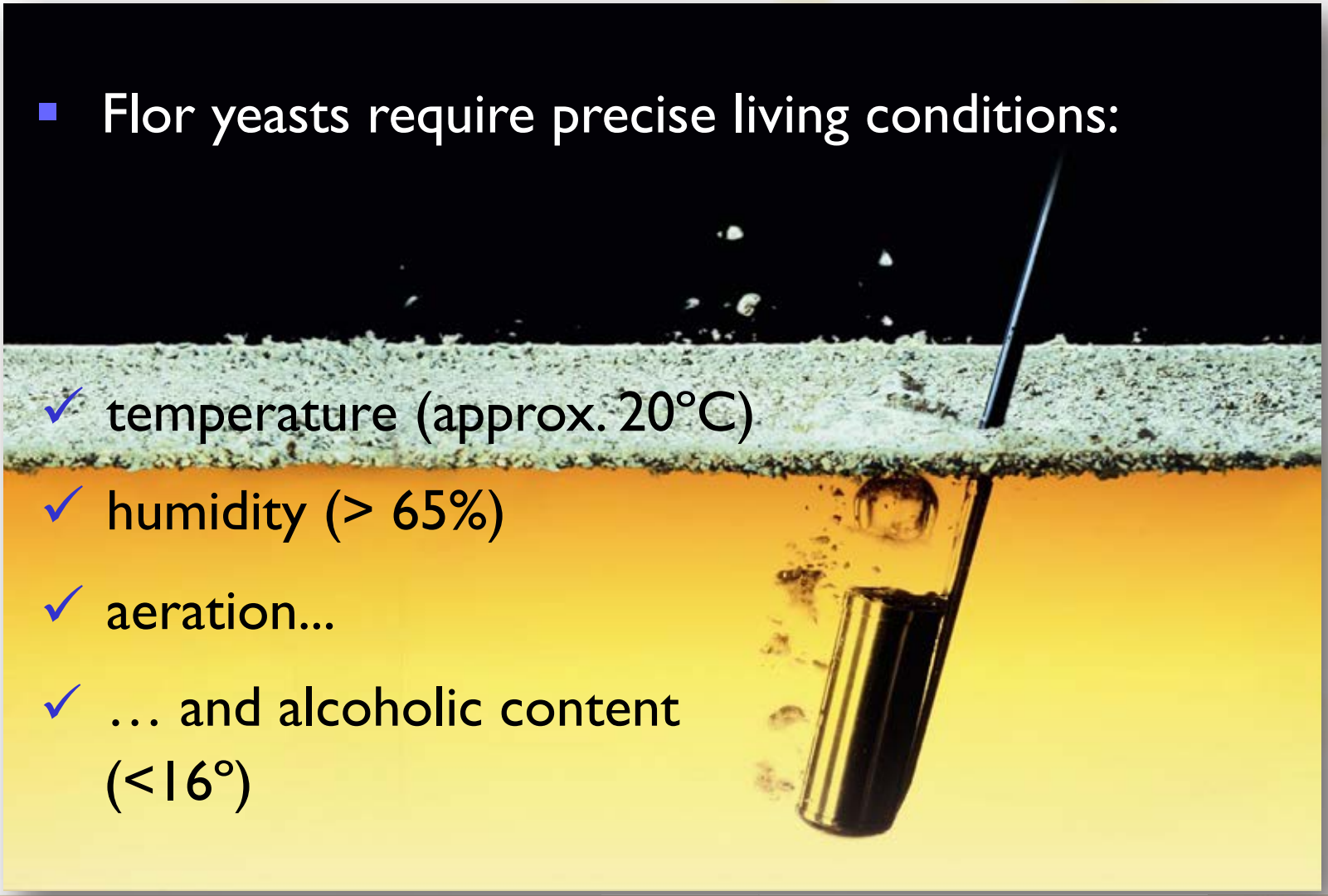
- saccharomyces cheresiensis
- saccharomyces rouxii
- saccharomyces montuliensis
- saccharomyces beticus
- valor en el momento 0





Flor. Life inside the barrel

- Flor yeasts require precise living conditions:



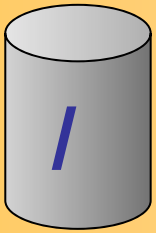
- ✓ temperature (approx. 20°C)
- ✓ humidity (> 65%)
- ✓ aeration...
- ✓ … and alcoholic content (<16°)

Fortification

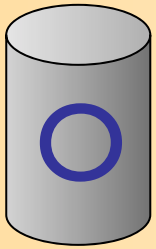
First classification (January) :

- pale & light wines: fino
- Heavier, darker wines: oloroso

Fortification ("encabezado") – addition of pure grape spirit
Objetive: increase the wine´s alcoholic strength



fino is fortified up to 15°

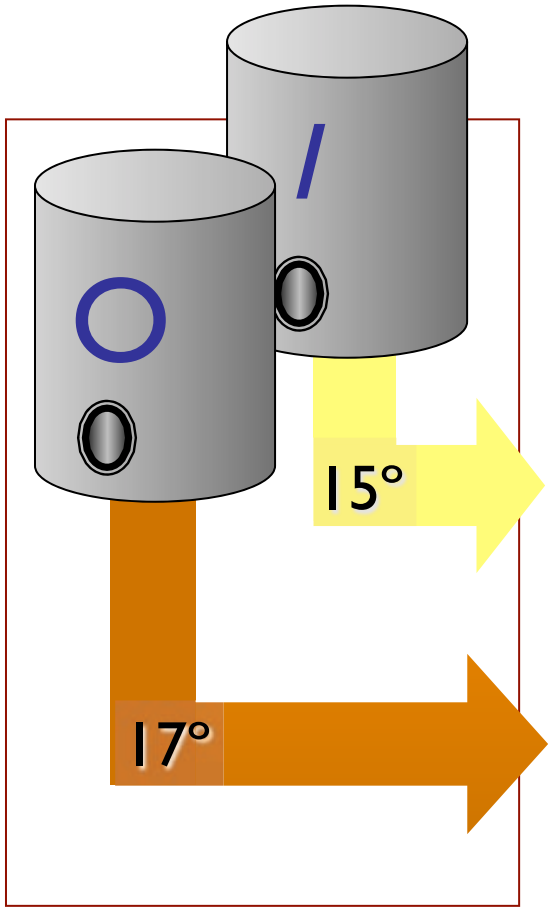


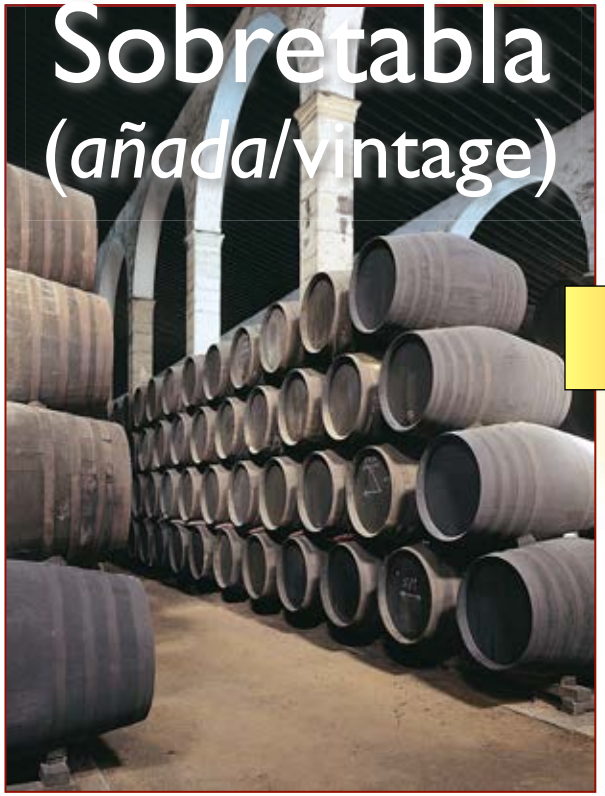
oloroso is fortified up to 17°

The different level of alcohol determines the future ageing of sherry inside the casks

at 15° alc.	at 17° alc.
wines keep the flor	wines lose the flor
biological ageing	*oxidative ageing*
the flor protects the wine from oxidation	without the flor, the wine is exposed to oxidation

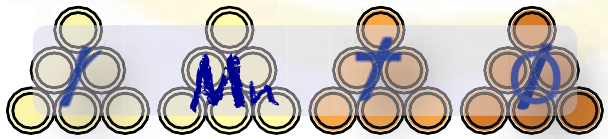
The first months in the wine´s life





2nd classification

and transfer to the different solera systems



Vinos Dulces Naturales

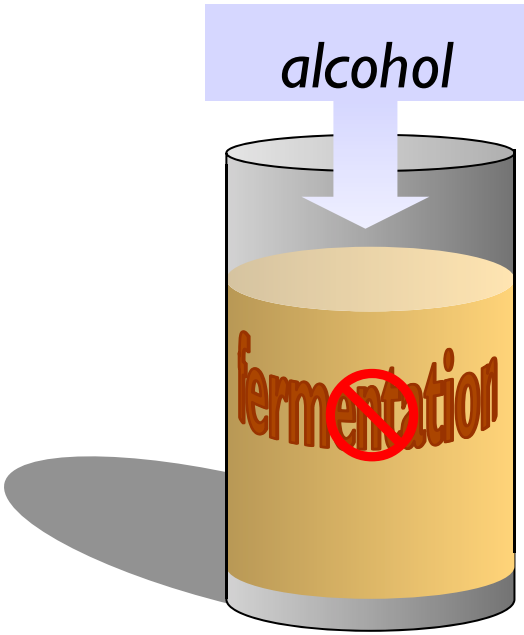
Sweet

- Produced mainly from moscatel and pedro ximénez grape varieties.
- Over-ripe grapes (either late-harvest or sun-dry / *asoleo*) in order to concentrate sugar and acids.

Vinos Dulces Naturales

Sweet

- Partial fermentation of the musts.



+ Oxidative ageing (no flor).

Moscatel

Pedro Ximénez