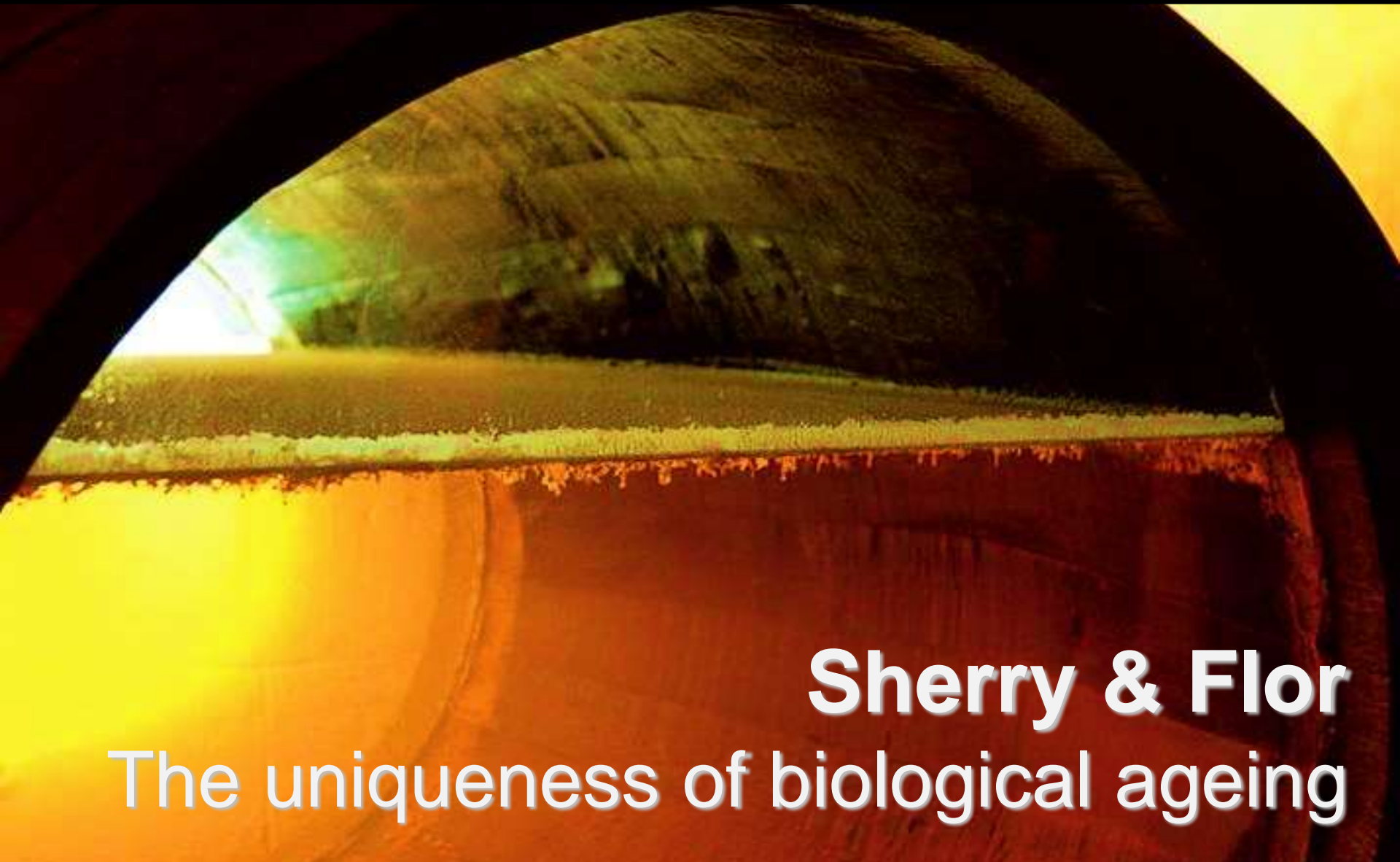


# Unlocking Sherry's Secret

Big Fortified Tasting. London, April 22<sup>nd</sup>, 2016



## Sherry & Flor

The uniqueness of biological ageing

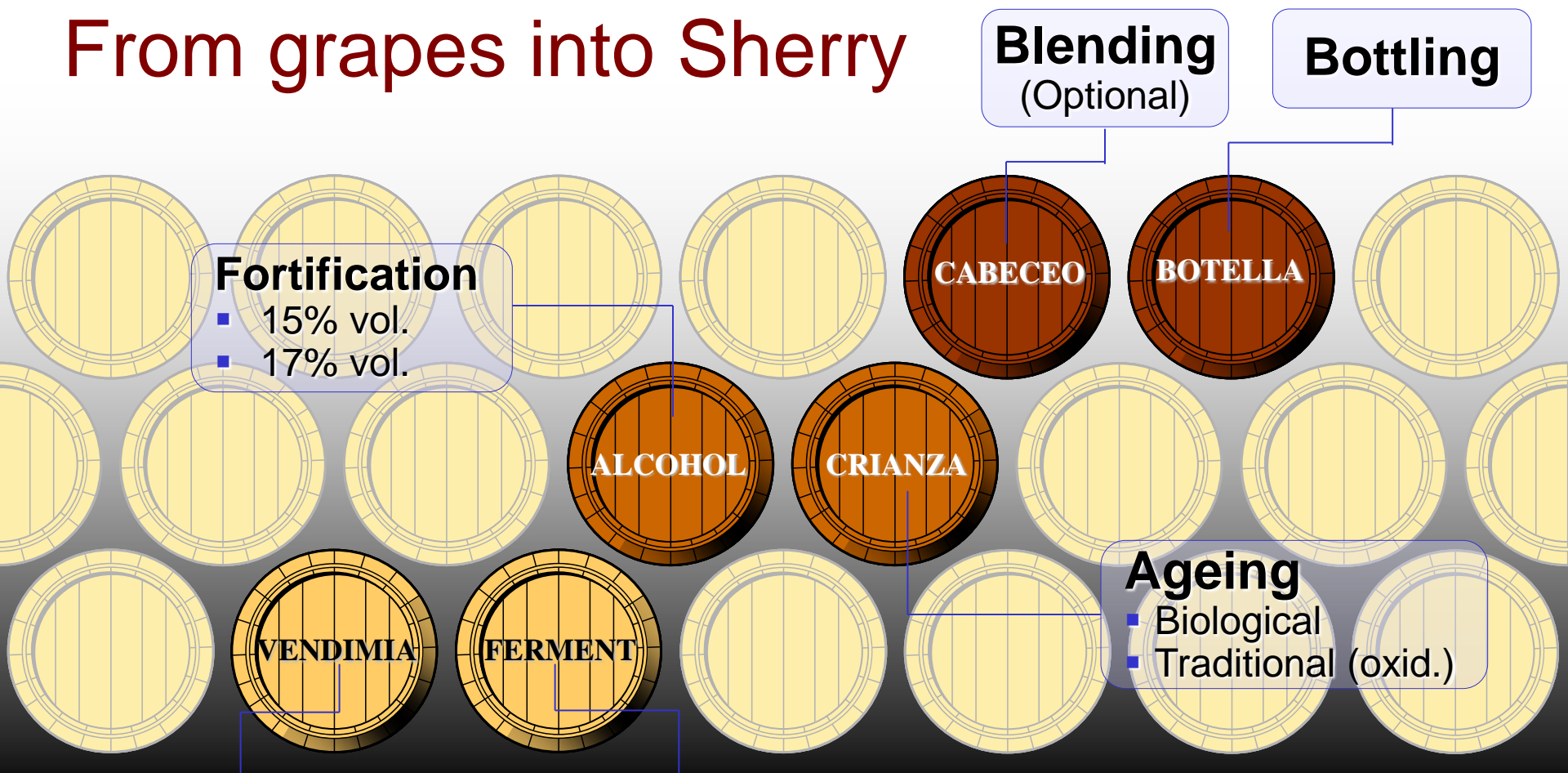
# Producing Sherry involves...



...and a succession of decisions



# From grapes into Sherry



**Harvest**

- Grape variety
- Fresh / over ripe
- Must extraction

**Fermentation**

- Complete
- Partial



## Southern-most Wine Region in Continental Europe



## Southern-most Wine Region in Continental Europe



# The *albariza* soil

White chalky soil, rich in calcium carbonate and with a great capacity to retain humidity



# Authorized grape varieties

**palomino**



**pedro  
ximénez**



**moscatel**

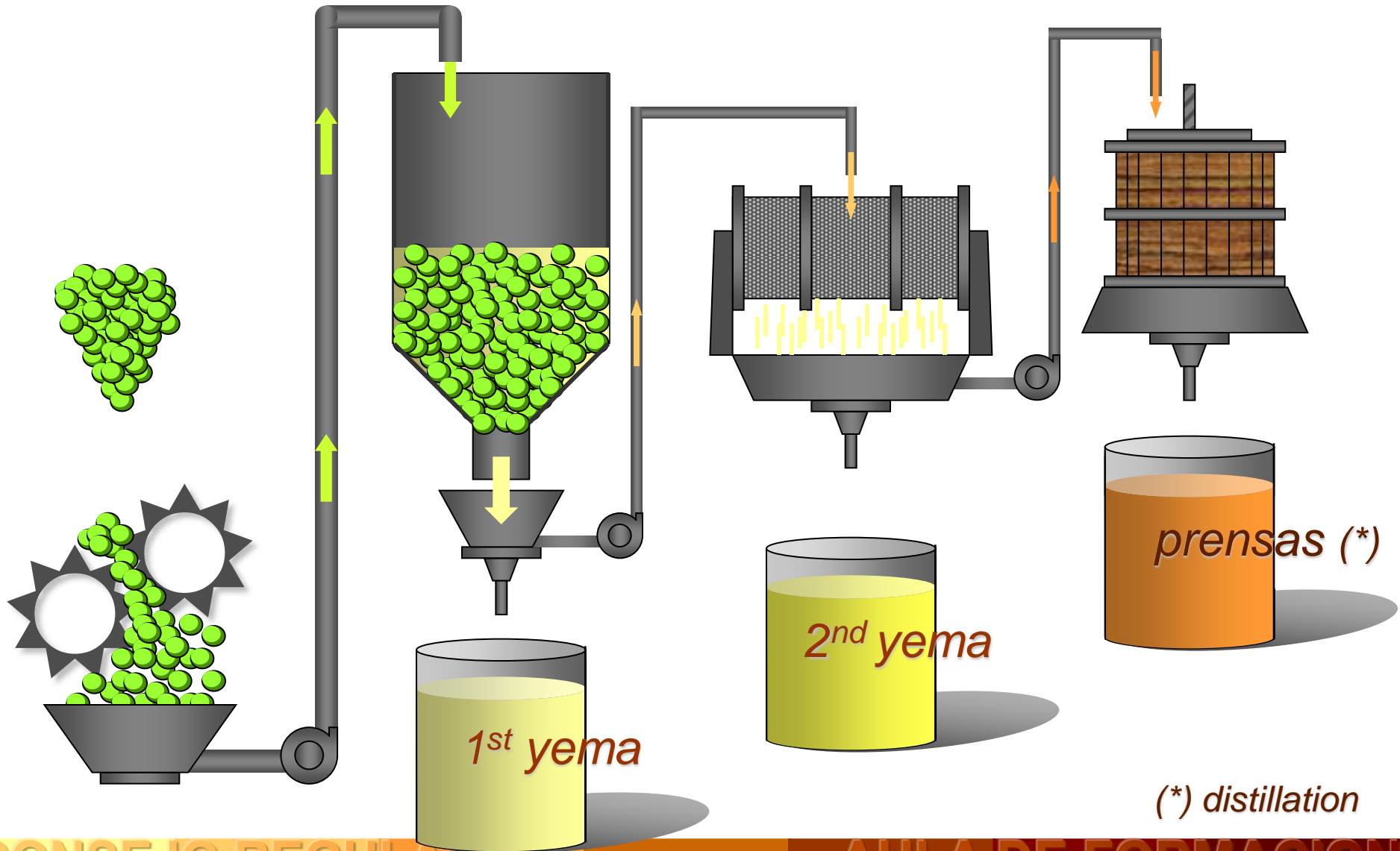




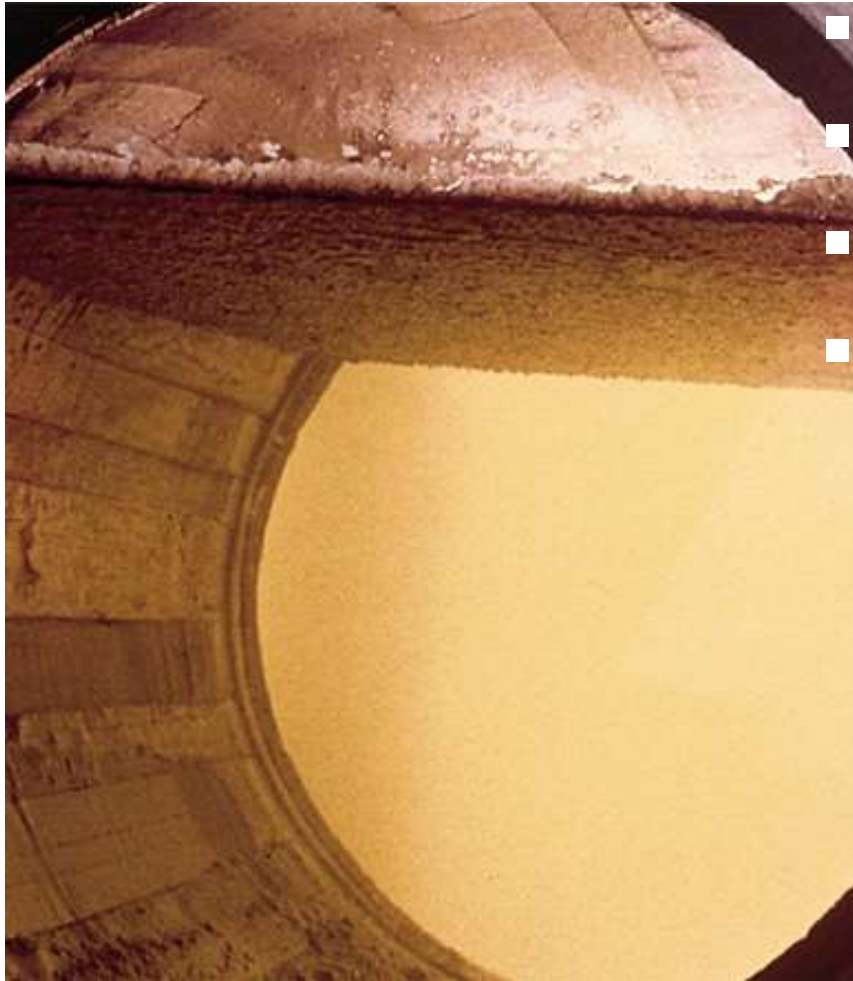
Palomino (Listán)



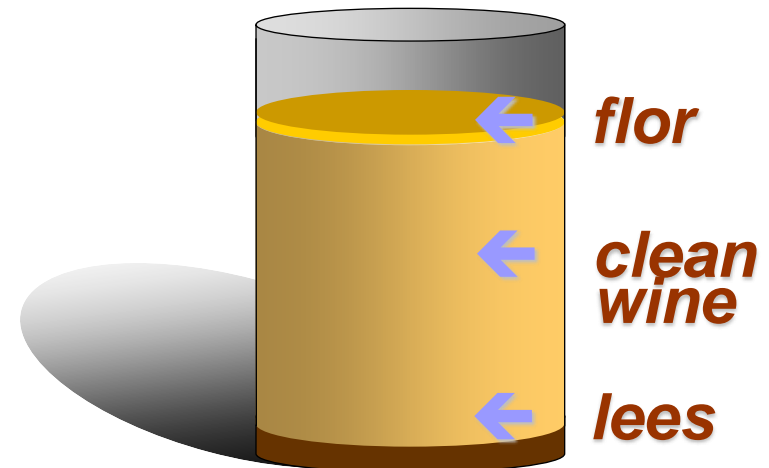
# Classification of the musts



# The base wine

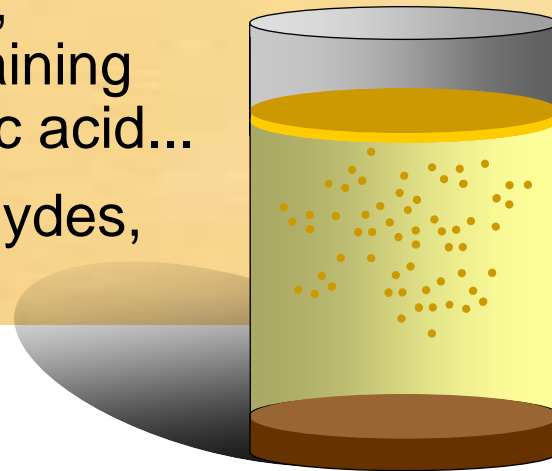
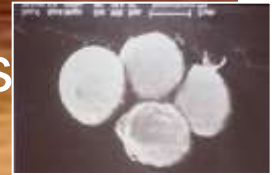


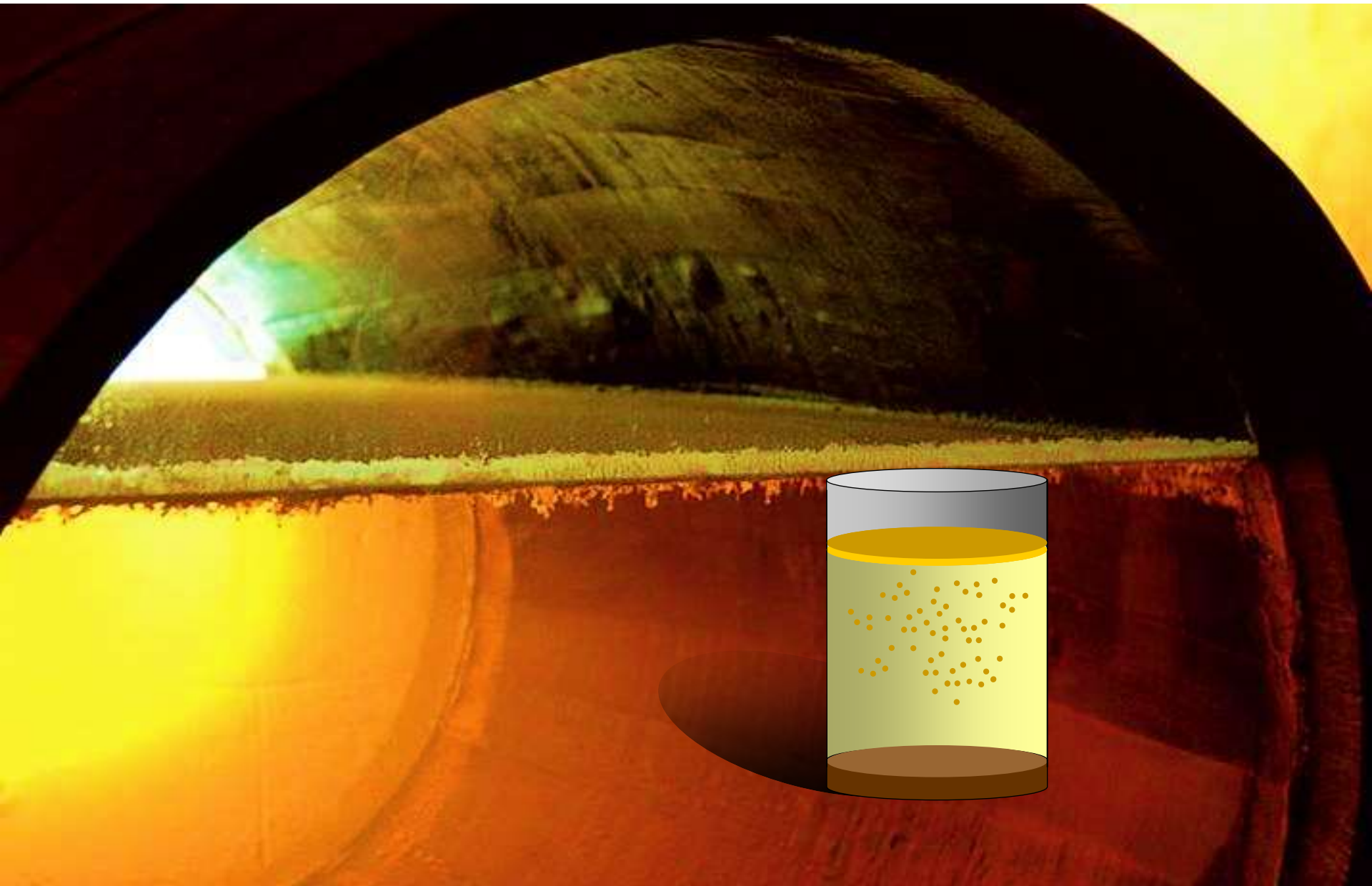
- End of November - “**deslío**”.
- Dry white wine.
- 11° to 12,5° alcohol.
- Spontaneous development of the “**flor**”.

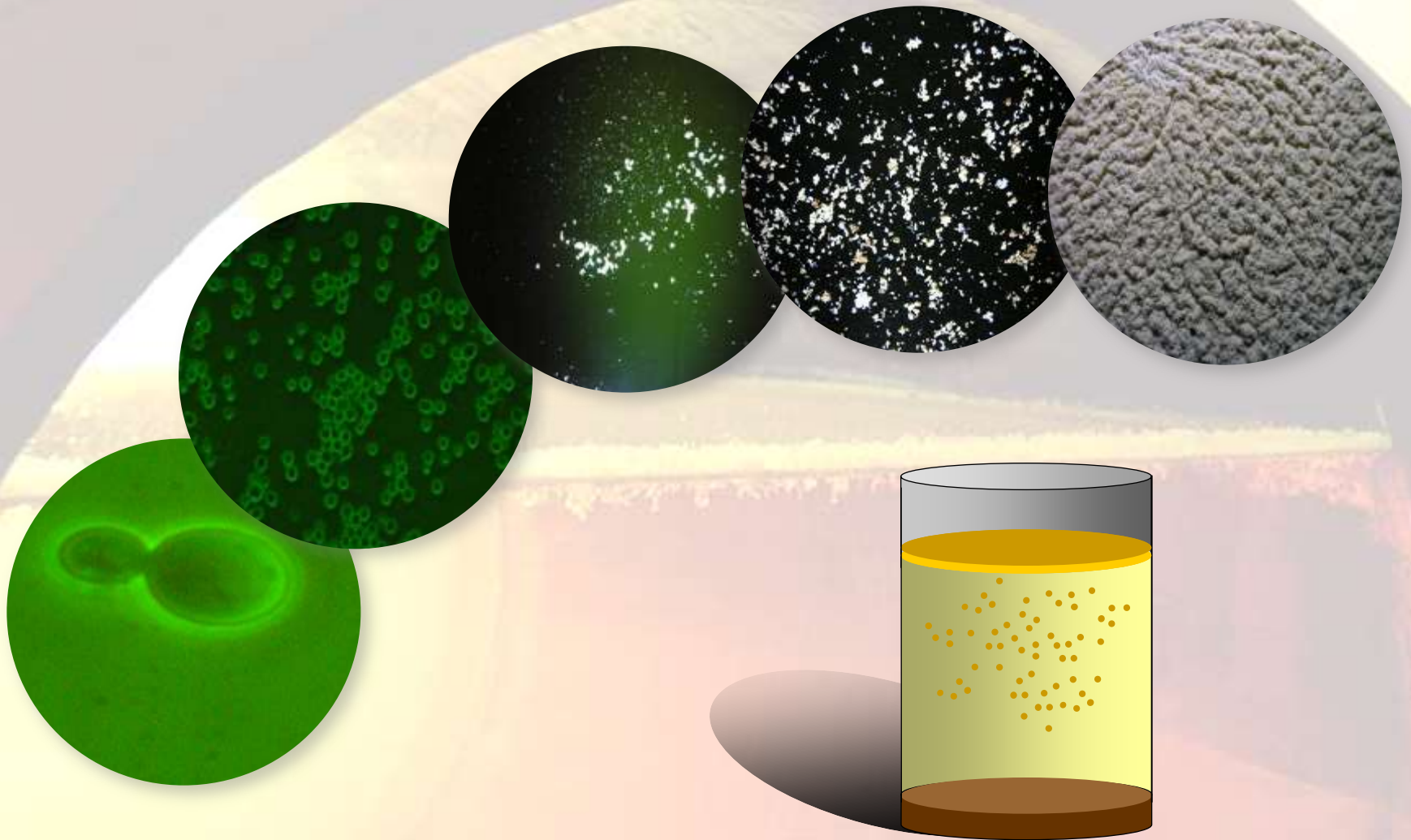


# Flor – the key to Sherry wines

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



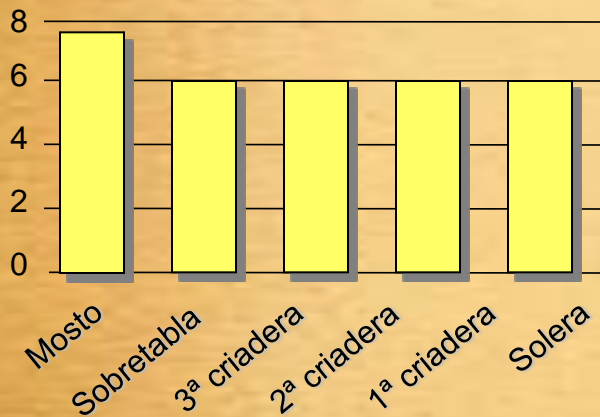




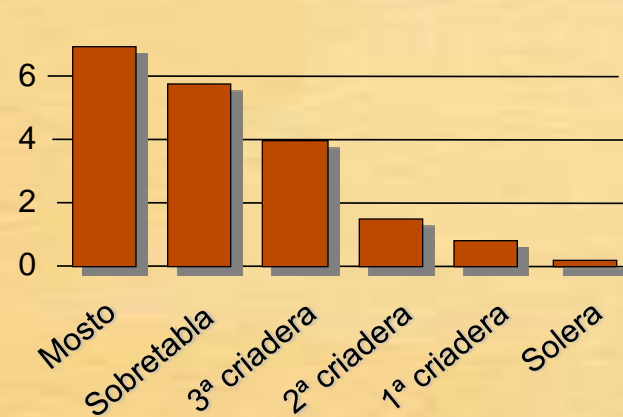
# What do we know about the flor?

## Continuous activity on the wine

Consumption of alcohol (lt./year/bota)

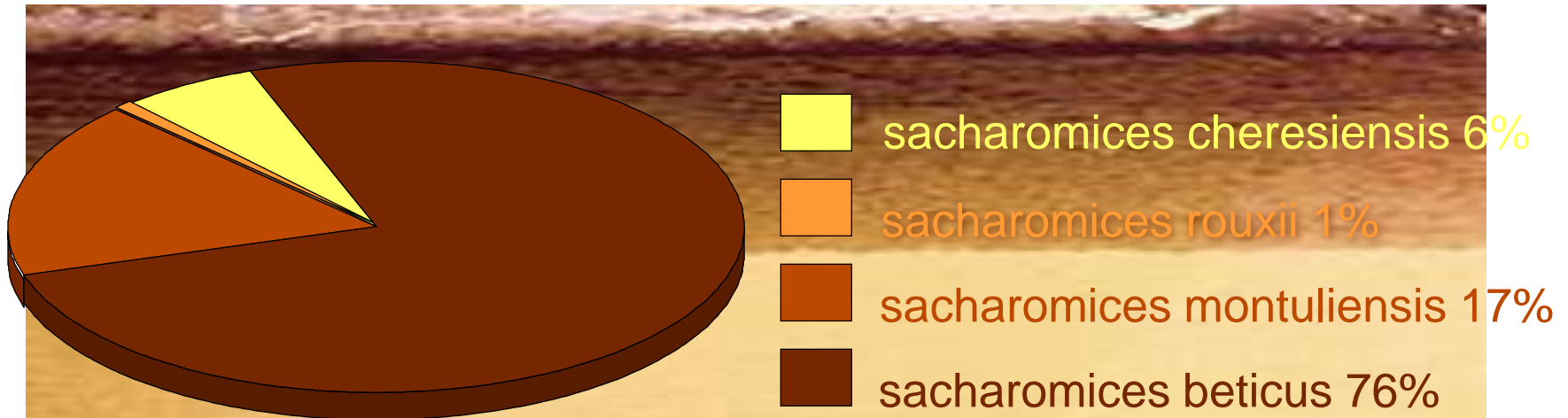


Evolution of glycerine (gr./lt.)

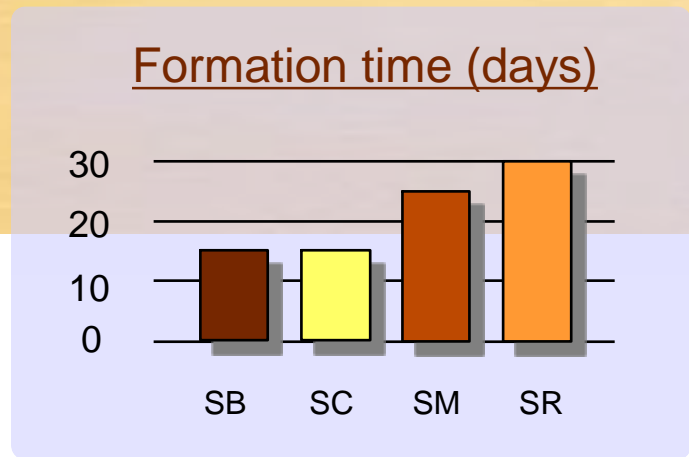


*Note: figures corresponding to a specific case in a bodega in Jerez, monitored by the University of Cádiz.*

# What do we know about the flor?

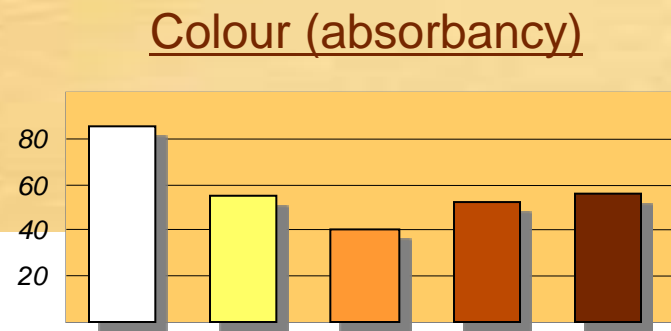
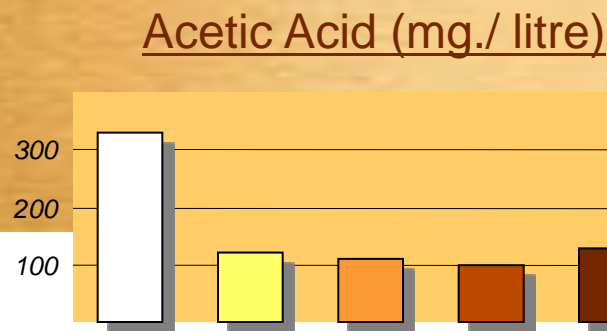


Composition differs,  
depending on environmental  
conditions



# What do we know about the flor?

## Evolution of key wine elements in a 12-month period



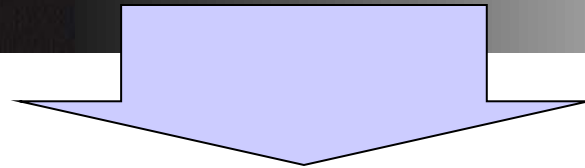


# Fortification

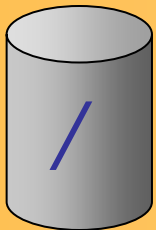


First classification (january)

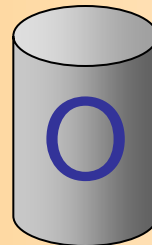
- pale and light wines: fino/manzanilla
- heavier, darker wines: oloroso



Fortification (“encabezado”) – addition of pure grape spirit  
Objetivo: increase the wine’s alcoholic strength



fino is fortified up to 15°



oloroso is fortified up to 17°

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



at 15° alc.

the wine keeps the flor

**biological ageing**

the flor protects the wine  
from oxidation

at 17° alc.

the wine loses the flor

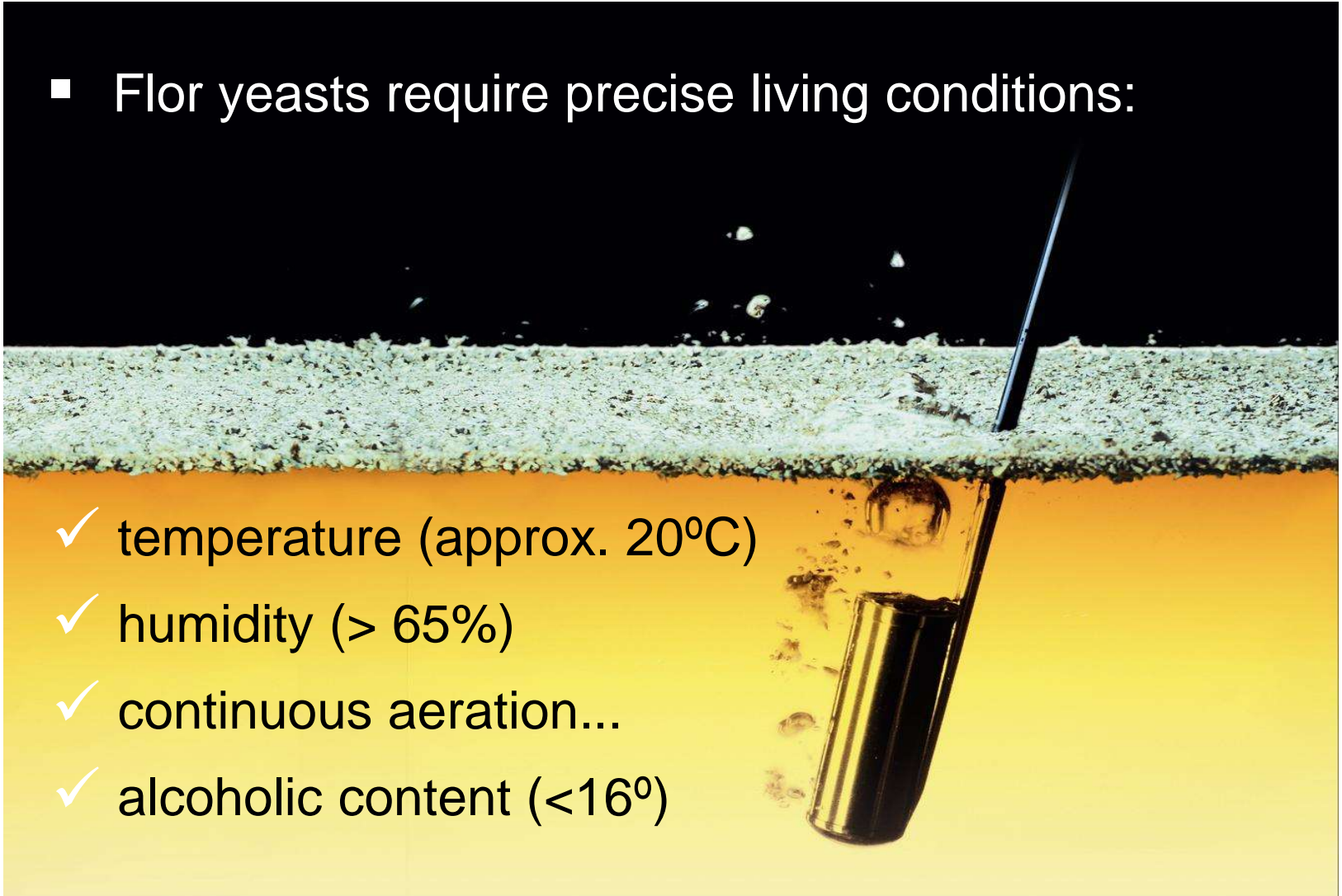
**oxidative ageing**

without the flor, the wine is  
exposed to oxidation

# Flor – live inside the barrel

- Flor yeasts require precise living conditions:

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

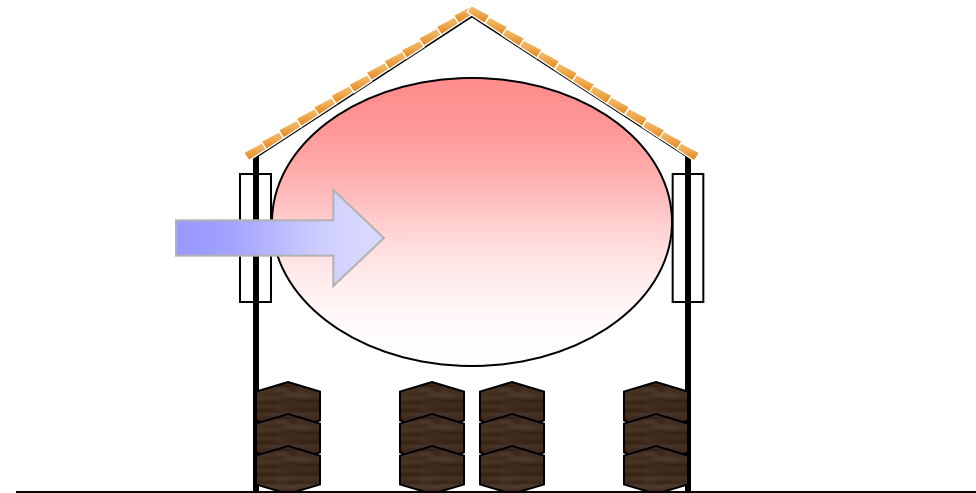




# The cathedral-like bodegas



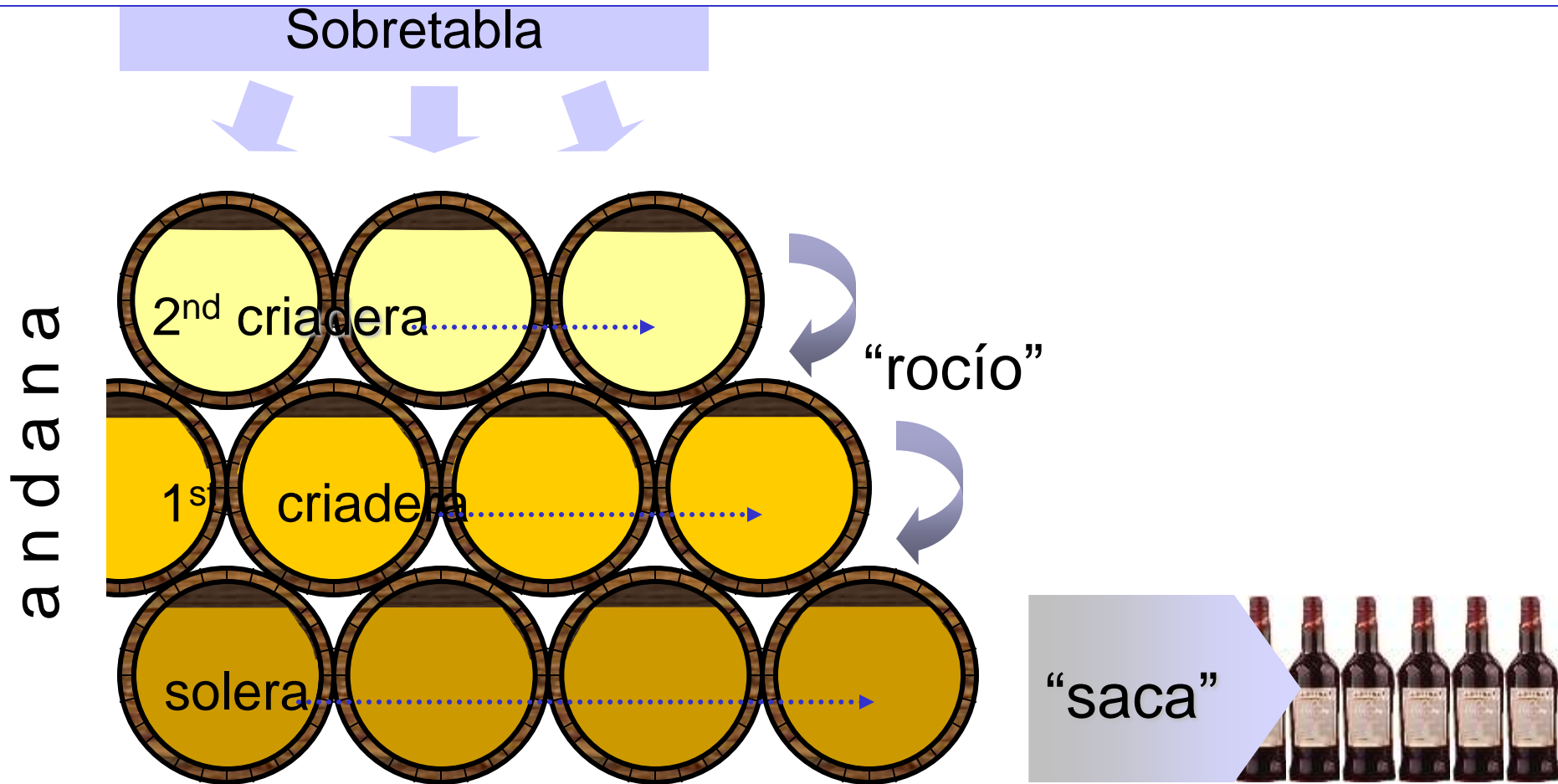
- Different styles and dimensions.
- Common elements: high ceilings, windows to capture poniente winds, albero floors...
- Stable microclimatic conditions.



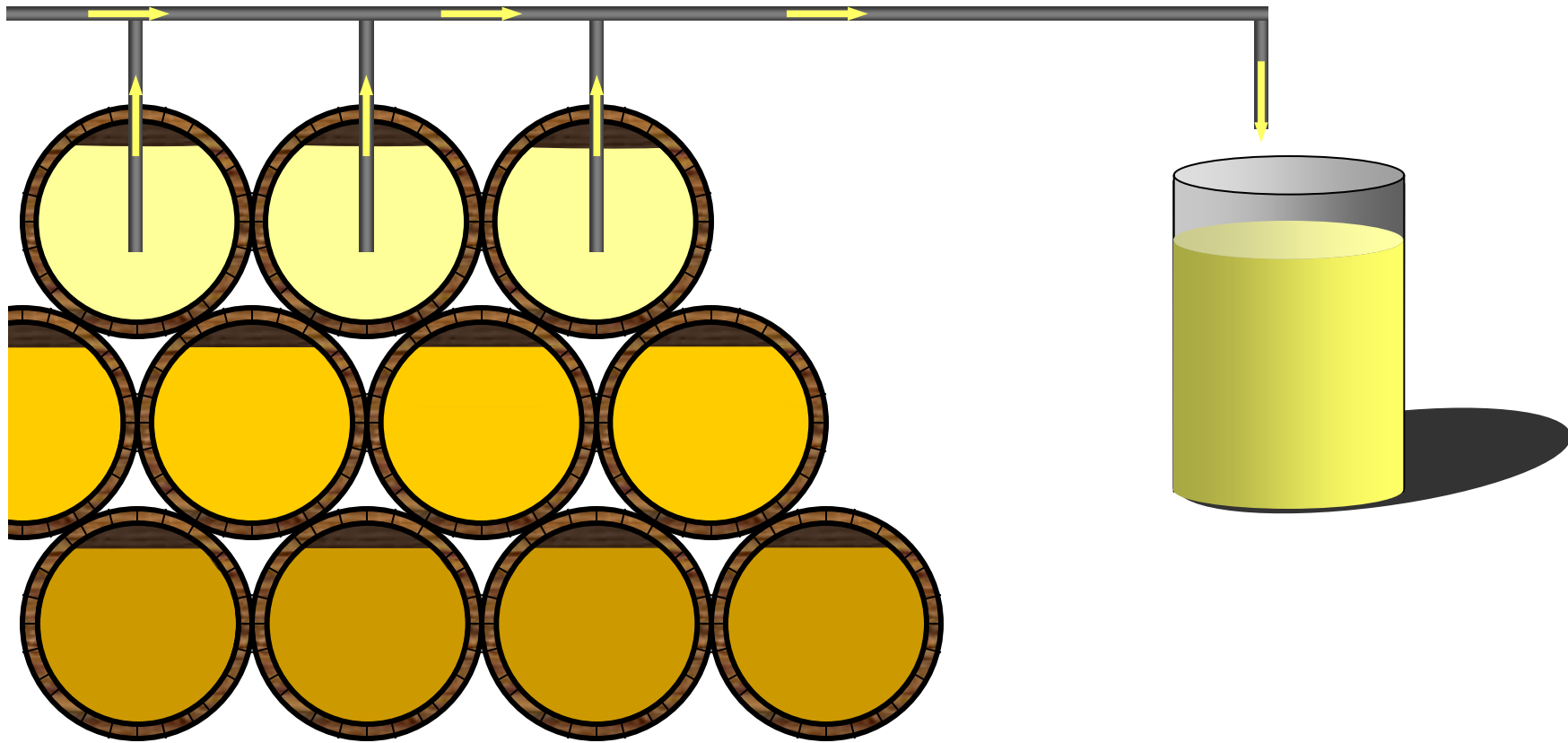
# Biological Ageing



# How does the solera work?

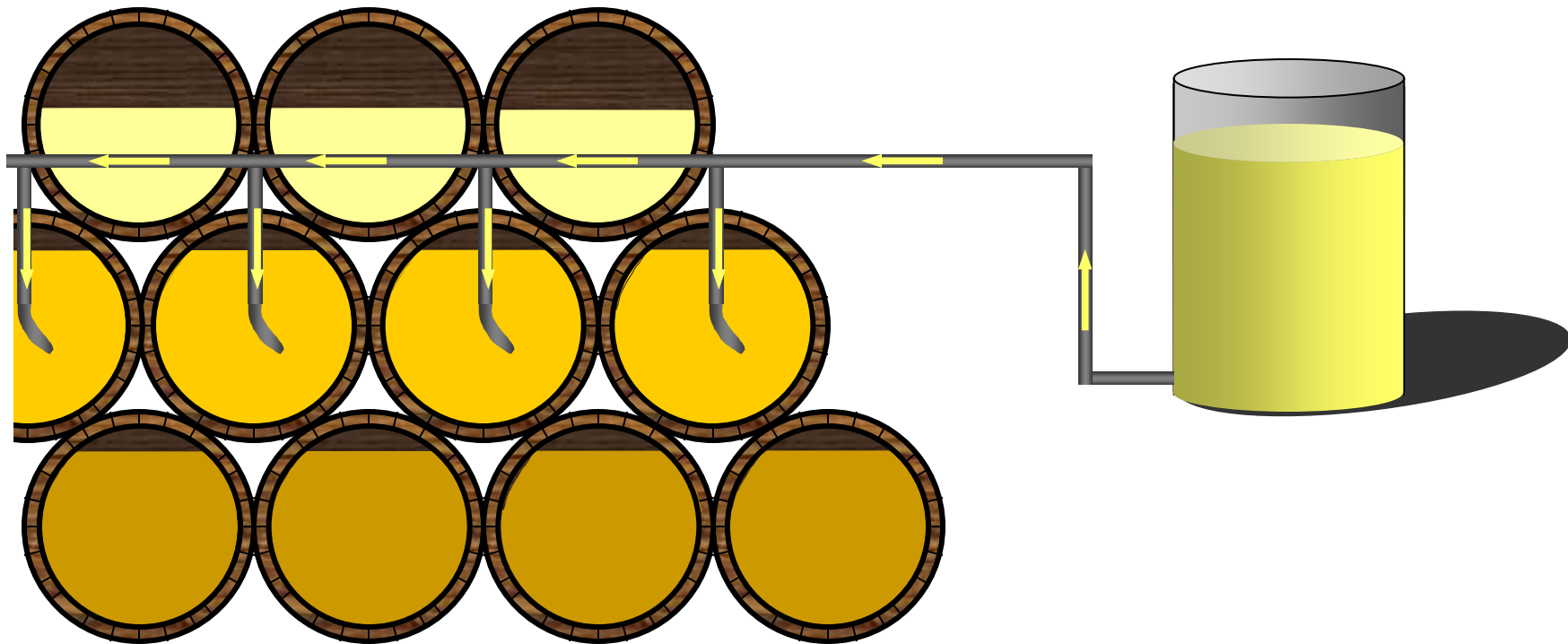


# How does the solera work?

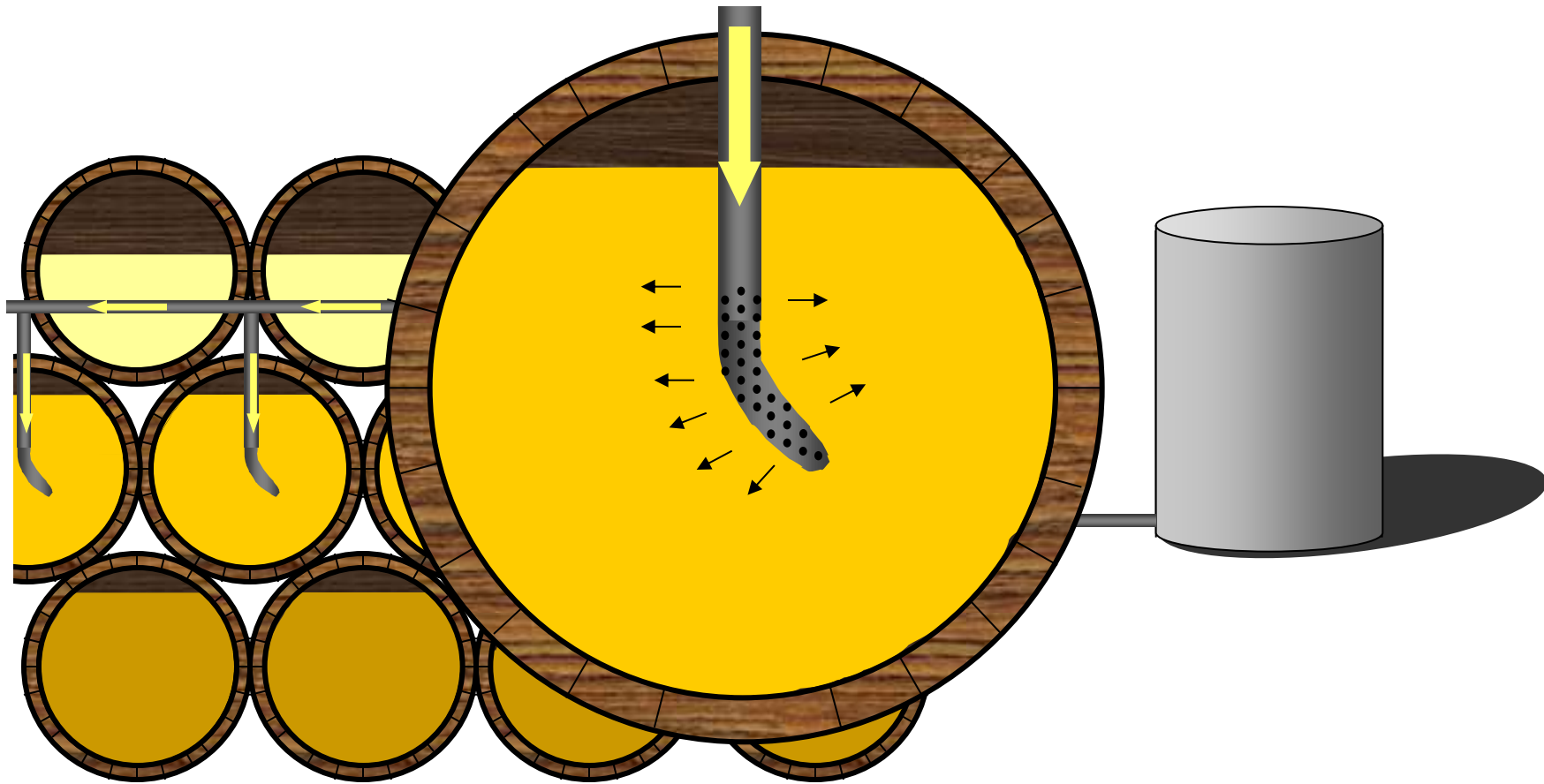




# How does the solera work?



# How does the solera work?



# Evolution of analytical parameters in biological ageing

	Average ageing in years	Alc. % vol.	Total ac. Tartaric ac. g/L	Volatile ac. Acetic ac. g/L	Achyde. mg/L	Eth. Acte. mg/L	Glycerine mg/L
Base young wine	-	12.0	5.0	0.40	50	75	7.3
Sobretabla	1	15.5	4.8	0.30	125	72	3.5
3 <sup>rd</sup> Criadera	2	15.3	4.2	0.25	210	70	1.5
2 <sup>nd</sup> Criadera	3	15.2	4.0	0.20	275	47	0.7
1 <sup>st</sup> Criadera	4	15.0	3.9	0.15	345	44	0.5
Solera	5	14.9	3.8	0.10	400	30	0.2

# The tasting

1. Fino La Ina. Lustau.
2. Manzanilla La Gitana. Bodegas Hidalgo – La Gitana.
3. Fino Harveys.
4. Manzanilla Solear. Barbadillo.
5. Tío Pepe en Rama. González Byass.
6. Manzanilla La Goya. Delgado Zuleta.
7. Fino Perdido. Sánchez Romate.
8. La Guita en Rama. Rainiera Pérez Marín.
9. Fino Antique. Bodegas rey Fernando de Castilla.

# Sherry & Flor

The uniqueness of biological ageing



albariza



palomino



flor



solera

# Sherry & Flor

The uniqueness of biological ageing



Thank you!



CONSEJO REGULADOR

AULA DE FORMACION

# Production scheme for dry sherries

