Sherry Viticulture
Southern-most Wine Region in Continental Europe
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7,000 has. of vineyards, in 9 municipalities
Main climatic factors

Mild winters (4°C/40°F), very hot summers (40°C/104°F).

620 litres per m² (25 inches) average annual rainfall.

Two predominant winds: poniente (west), fresh and humid; and levante (east), warm and dry.

Average 300 days of sunshine per year.
Two predominant winds: poniente (west), fresh and humid; and levante (east), warm and dry.
The landscape of the “Marco de Jerez”

Wide horizons with gentle slopes (10-15% gradient), made of a white chalky soil: albariza
Quality factors of a vineyard

The different “pagos” are classified according to their location and related factors:

- Type of soil.
- Altitude.
- Exposure to sun and winds.
- Proximity to the sea.
The “pagos”

- Jerez de la Frontera: 65%
- El Puerto de Santa María
- Sanlúcar de Barrameda
- Trebujena
- Chipiona
- Rota
- Chiclana de la Frontera
- Puerto real
- Lebrija

- Callejuela
- Hornillo
- El Maestre
- Mahina
- Medidora
- Mirafloras
- Munive
- Pastrana

- Balbaina
- Los Tercios
The “albariza” soil

- White soil (alba=white), made from the sedimentation of marine diatoms.
- Very chalky, with high content of calcium carbonate (25% to 40% limestone) and poor in both organic material (1.3% to 1.5%) and nitrogen.
- Helps retain moisture.
Other types of soil

**Arenas**
- Located in the coastal areas.
- Composition: sand, clay and less than 20% limestone.

**Barros**
- Located mainly in the valleys.
- Clay, sand, limestone and decomposed organic matter.
- Darker colour. More fertile.
Authorised grape varieties

- Palomino
- Pedro Ximénez
- Moscatel
Palomino Fino – the Sherry grape variety

- Large bunches, with medium-sized fruit.
- Pale green colour, turns golden when ripe.
- Very pale juice.
- Average sugar content 11º Bme.
- Average total acidity 3.7 g/l.
The palomino grape

Low level of Málic Acid (gr./l)

- Colombard
- Chardonnay
- Garrido fino
- Moscatel Malaga
- Moscatel morisco
- Palomino fino
- Pedro Ximénez
- Riesling
- Sauvignon blanc
- Traminer

Palomino grape has a low level of Málic Acid.
Palomino de Jerez

- Traditional sub-variety, less used nowadays.
- Slightly higher sugar content (average 11.1º Baumé) and acidity (4 g/l.)
Pedro Ximénez

- Used for sweet wines, due to its higher sugar content – average 12.8° Baumé.
- Acidity – 4.5 g/l.
- Thin skin, which facilitates “soleo” (sun-drying) process.
Moscatel

- Mainly planted in coastal (arenas) areas of the D.O.
- Traditionally used for sweet wines.
- Average sugar content – 11.7º Baumé.
- Acidity – 4.1 g/l.
Planting process

Resting period of minimum 3 years.

*August*: preparation of the soil (oxygenation and fertilisation).

*November*: levelling of the soil.

*December*: marking out the vineyard.

*January*: planting the rootstocks.

*September*: grafting on the grape variety.
Preparation of the soil

1 “Agostado” – 70 to 80 cm. ploughing, in order to help oxygenate the soil.

2 Fertilisation (organic).
Layout of a new vineyard

- Rows run horizontal to the slope.
- 3,500 to 4,000 vines per hectare.
Layout of a new vineyard

Traditional (marco real)

Modern (espalier)

1,5 m.

1,15 m.

2,3 m.
Planting of the rootstock

- December / January, in order to benefit from rainy season.
- Hand-planting.
- Selection of the most suitable rootstocks, based on:
  - compatibility with local varieties.
  - resistance to phylloxera, nematodes, limestone soil, drought, humidity, salinity...
  - capacity to develop roots.

The grafting

January / August
development of the rootstock

August / September
grafting of the palomino buds
The first year

Grafted area covered until spring to protect it from the cold.

Spring of year 1: development of the bud
Establishing an adult vine

Limited grape production during the establishment of the plant (until 4th year)
Stock grafting ("en espiga")

Alternative grafting method for vines with unsuccessful bud-grafting (end of winter – year 1).
Modern plantations

- Use of pre-grafted rootstocks from greenhouses.
- Use of selected local vine buds.
- Plantation in January.
- Save one full year.
Traditional pruning method: “vara y pulgar”

- After the 4rd year, the vine is formed with two arms, concentrating the production of grapes –7 to 8 buds– in just one of them (“vara”).
- The resting arm (“pulgar”) will be used as a the “vara” on the following year.
Traditional pruning method: “vara y pulgar”
Alternative – double cordon

- A growing trend in Jerez
- 6 to 8 buds per vine
- Favours mechanization

![Diagram of double cordon viticulture with 80 cm. measurement]
viticulture

- January: bud break
- March: flowering, veraison
- May: ripening
- September: fall of the leaves
- July: veraison
- November: fall of the leaves
Cultivation – tradition and modernity

- A traditional method to maximise use of the rainfall – the “aserpiado”.
- Progressive reduction of the use of pesticides – integrated production techniques.
Some basic numbers

A matured vine...

... is normally in use for 30 to 35 years at full production.

... develops 7 to 9 bunches in the “vara”.

... produces approximately 3 kilograms of grapes in normal conditions.
Some basic numbers (2)

A vineyard in full production...

... has 3,500 to 4,000 vines per hectare.

... shall limit its production to maximum 11,428 kgs. (80 hectolitres) per hectare.

... requires more than 40 tasks per year, with a limited level of mechanisation.
The ripeness of the grape

The ripeness of grapes, as key factor in order to determine the optimal time for harvest, is characterized by:

- A change in the colour (golden) and texture (soften) of the grapes.
- Alterations in acidity, astringency and sweetness.

**Analytical parameters to be considered:**

- Content in sugar (minimum of 10,5º)
- Total acidity (need to correct pH)
- Sanitary aspects of the grape (gluconic)
The Harvest

- Early ripening of grapes – August/September.
- Average sugar levels 11 to 12.5º Baumé.
- 50% hand-picked and frequent night harvest.

Rapid harvesting is necessary
Viticulture – some key basic ideas

☑ Specific viticultural conditions: soil & climate.

☑ Three authorised white grape varieties.

☑ Palomino: the main Sherry grape.

☑ Viticultural technics combining traditional and modern methods.

If you want to learn more... read this:

☑ La Viticultura del Jerez, by Alberto García de Luján (Spanish)