

Soils and climate of the satellite appellations of Saint-Emilion Château Rigaud / La Mauriane – Puisseguin Saint-Emilion

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The appellations Saint-Emilion and Saint-Emilion Grand Cru (5450 ha) are surrounded by four satellite appellations: Montagne Saint-Emilion (1450 ha), Lussac Saint-Emilion (1450 ha), Puisseguin Saint-Emilion (730 ha) and Saint-Georges Saint-Emilion (200 ha). The geology of the satellite appellation is composed of Tertiary sediments, including soft limestone located on the slopes, called “molasses du Fronsadais” (Oligocene), hard limestone located on the plateaus, called “calcaire à Astéries” (Oligocene) and non-calcareous river sediments in the northern part of the area, called (sables du Périgord, Eocene). The topography is gently sloping and extends between 30 m above sea level (m.a.s.l.) and 106 m.a.s.l. Soils are calcareous on 34 % of the area and vary from shallow on the “calcaire à Astéries” to medium depth on the “molasses du Fronsadais”. The texture of the calcareous soils is silty clay. On 66 % of the area soils are non-calcareous and vary in texture from sandy silt to silty clay. The non-calcareous soils are deeper and have generally a greater water holding capacity.

The climate is, on average, cooler in the satellite appellation compared to Saint-Emilion, but temperatures do vary locally. The highest average temperatures are recorded on the limestone plateaus, while temperatures are lower in the northeastern part of the area.

The wines from the satellite appellations used to be not as famous as the wines from Saint-Emilion. Because of the cooler climatic conditions, maturity was more difficult to achieve. With climate change, this handicap is progressively turning into an advantage and wine quality is steadily increasing in this area.

One of the soil types of the châteaux Rigaud and La Mauriane (Puisseguin Saint-Emilion) is a shallow calcareous soil on hard limestone (“calcaire à Astéries”). This soil is highly suitable for growing Cabernet franc, but fine wines are also produced with Merlot. Wines are not naturally very concentrated, but they display lots of finesse and complexity. Tannin structure is refined and wines have a great aging potential.

Keywords : Soil, Climate, Saint-Emilion, satellite appellation, château Rigaud, château La Mauriane, Puisseguin Saint-Emilion

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The Saint'Elites
 Clos Albertus
 Château La Couronne

Château Corbin
 Château De La Grenière
 Château Guibot La Fourvielle
 Château Rigaud
 Château La Rose Perrière
 Château Tour Bayard îlot 1
 Château Tour Bayard îlot 2
 Château Vieux Bonneau

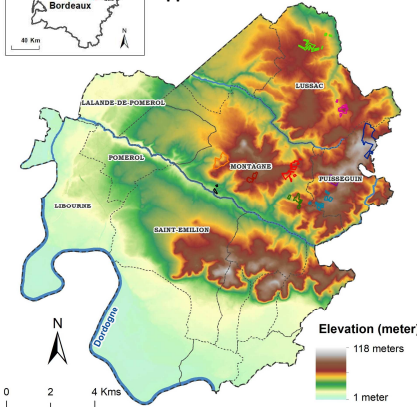


Additional information on the terroir of the Saint-Elites association

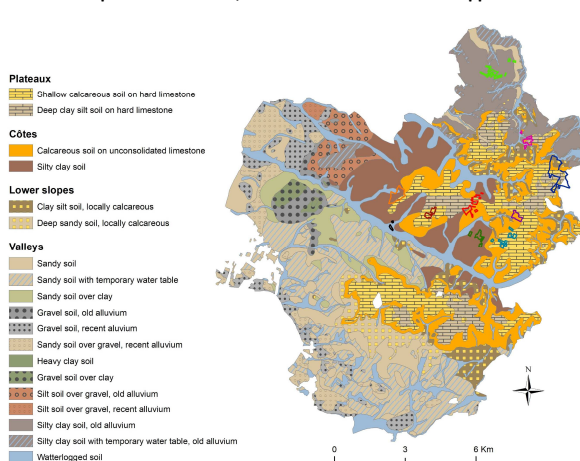


Additional information on the terroir of Saint-Emilion with multiple interactive maps (Advicim project)

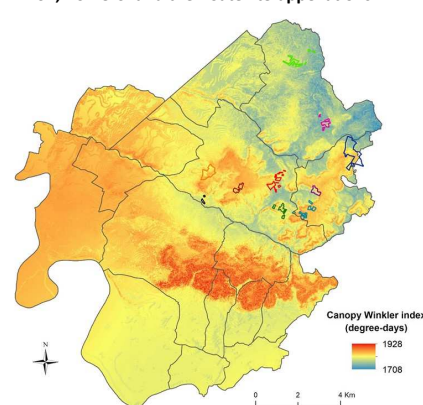
Topography map of Saint-Emilion, Pomerol and their Satellite appellations



Soil map of Saint-Emilion, Pomerol and their Satellite appellations



Canopy Winkler index map (average 2012-18) of Saint-Emilion, Pomerol and their Satellite appellations

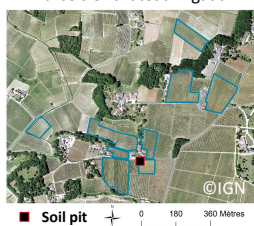


Geology, topographic and soils have a high degree of similarity between Saint-Emilion and its satellite appellations

The climate is cooler in the satellite appellations compared to Saint-Emilion and Pomerol

Château Rigaud – La Mauriane PDO Puisseguin Saint-Emilion

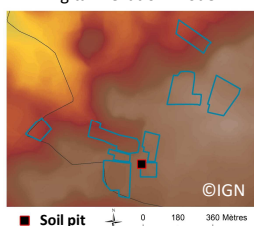
Parcels of château Rigaud



Soil pit parcel informations:

- Plant material: Merlot/?
- Planting year: 1978

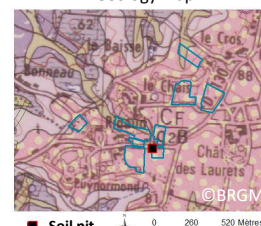
Digital Elevation Model



Topography:

Plateau
89 m.a.s.l.

Geology map



Geology:

Calcaire à Astéries (Oligocene)



Soil type (Fr):
CALCOSOL peu profond sur calcaire dur (*calcaire à Astéries*)

Soil type (En):
Shallow calcareous soil on hard limestone (*calcaire à Astéries*)

Parcel "Face maison"	Horizon 1
DEPTH (cm)	0-30
COURSE ELEMENTS (>2 mm) (%)	3%
FINE EARTH (%)	97%
Coarse sand	21%
Fine sand	9%
Coarse silt	21%
Fine silt	27%
Clay	23%
TEXTURE	Silty-clay
ORGANIC MATTER (%)	4.4
ORGANIC CARBON (%)	2.6
TOTAL NITROGEN (%)	0.23
C/N ratio	11.1
pH (water)	8.2
pH (KCl)	7.6
ADSORBANT COMPLEX	
K ⁺ cmol/kg	1.06
Mg ²⁺ cmol/kg	1.42
Ca ²⁺ cmol/kg	++
S (sum of cations)	++
V (saturation rate)	Sat.
C.E.C cmol/kg	15.3
Total Ca (%)	23.8
Active Ca (%)	6.2
IPC	155
P ₂ O ₅ g/kg Joret-Hébert	0.395
TRACE ELEMENTS	
Cu exch. mg/kg	5.0
Mn exch. mg/kg	5.3



Soil description:

- Very shallow soil over hard limestone
- Silty-clay texture
- High rooting density at the contact of the *calcaire à Astéries*
- Migration of water from the bedrock to the roots in dry summers
- High OM and total nitrogen content
- Risk of chlorosis due to presence of CaCO₃ and bedrock close to the surface



Recommended plant material:

- Rootstocks: 41B or Fercal due to the risk of chlorosis
- Cabernet franc is the preferred option, Merlot is possible



Wine style:

- Very high potential for the production of quality wines
- Wines not particularly concentrated, but offering lots of finesse and complexity
- Excellent aging potential