

Soil map of Sauternes

Barsac - Bommes - Fargues - Preignac - Sauternes

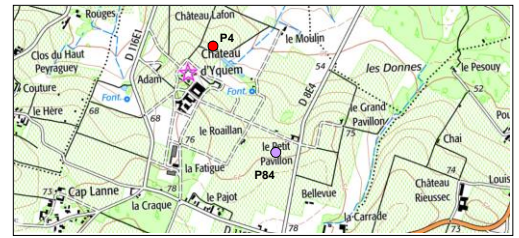
O.Trégoat - X.Choné - P.Chéry - 10/02/2006

Profile 4

SAUTERNES; Location name: "Lafon"
X : L93 : 435 783 m – Y : L93 : 6388 566 m

CALCOSOL

Clayey to clayey silt on Miocene limestone



© SCAN25-IGN-2012

Analytical results

Horizon	Depth (cm)	Particle size (‰)					Course elements	Organic matter (OM)		
		Clay	Fine silt	Course silt	Fine sand	Course sand		OM (‰)	N (‰)	C/N
ACa	0 - 60	173	41	61	241	469	15	12.3	0.85	8.4
SCa	60 - 130	444	65	80	272	133	0	-	-	-
CCa	130 - 180	350	410	87	43	108	0	-	-	-

Pulled out vines

Soil with a clayey tendency with the presence of sand on the surface, resulting from sandy colluviums of Miocene limestone, not sensitive to compaction,

Alkaline soil super-saturated by Ca (pH above 8),

Presence of deep limestone but low IPC with limited risk of chlorosis,

Rather high water reserve rather favorable to white grape varieties,

Organic matter content a little low to be corrected in a calcareous context.

Depth (cm)	Soil water pH	pH KCl	Limestone total (‰)	CPI*	Exchangeable cations (Cmol/kg)					CEC sat. (%)
					Ca	Mg	K	Na	CEC	
0 - 60	8.1	-	180	-	21.56	0.57	0.24	-	7	100
60 - 130	8.3	-	21	-	18.78	1.45	0.40	-	14.8	100
130 - 180	8.7	-	716	16	38.20	1.01	0.17	-	7.5	100

* CPI = Chlorosis Power Index



MORPHOLOGICAL DESCRIPTION

0 - 60 cm : ACa. Clayey, true brown sand (7.5YR4/4); unclear sub-angular polyhedral structure; fairly porous, low effervescence; dense rooting of all sizes and orientations; some limestone (15-20%); unclear transition reworked by tillage.

60 - 130 cm : SCa. Decarbonation clay, ochre brown (10YR4/6); prismatic to massive structure; not very porous and fairly compact, fresh with some ferro-manganic concretions; low effervescence; fairly dense rooting with coarse and horizontal roots and some fine and medium verticals; no coarse elements; smooth transition (5 cm).

130 - 180 cm : Cca. Clay-loam, off-white to ochre (10YR8/2); strongly calcareous; very numerous calcareous nodules; fine to massive polyhedral structure; fairly compact, not very porous, fresh; some fine and medium live roots and some necrotic; no calcareous stones.

AGRONOMIC COMMENTS

A fairly deep clayey soil, with a sandy surface and some calcareous stones, not sensitive to compaction at depth (around 130-140 cm) on a more or less altered Miocene limestone.

The porosity remains limited, which induces a slow moistening following rainy episodes, favorable to noble rot at the end of the summer; the whole soil presents a structure favorable to root exploration.

Soil with a favorable viticultural potential for white grapes (soil water holding capacity close to 280 mm), a priori without risk of marked chlorosis (CPI < 20 above 130 cm), but beware of chlorosis in wet springs years; Organic matter content to be noted. Possible rootstocks: traditional 420 A in this type of situation, or 3309 C or 101-14Mgt. .

