



1103 Paulsen



Name of vine variety in France (and common name)

1103 Paulsen (1103 P)

Breeder and year of obtention

Federico Paulsen, 1896

Genetic origin

This variety is derived from the crossbreeding of *Vitis berlandieri* cv. Ressaéguier n°2 and *Vitis rupestris* cv. Lot.

Evolution of areas under rootstock nurseries

	1965	1975	1985	1995	2005	2015
ha	114	239	104	69	113	80

Estimated surface area of French vineyards grafted with this rootstock and the

9 000 ha. Charentes, Languedoc-Roussillon, Provence-Alpes-Côte d'Azur, Corsica, Aquitaine

Ampelographic description

Identification signs include:

- the tips of the young shoot are half opened and have a sparse coat of flat lying hairs,
- the young leaves have slightly bronze patches,
- the shoots have horizontal growth and are bushy with a ribbed contour, red internodes on the dorsal side and green on the underside with an absence of flat lying hairs and a sparse coat of upright hairs on the nodes,
- fairly developed tendrils,
- adult leaves are small to medium size, large and kidney shaped, whole, upturned and jagged with an open petiolar sinus which is bordered by the vein near the petiolar point, slight anthocyanin pigmentation on vein near the petiolar point; short to moderate size teeth compared to width; the leaf blade is matter, rather light colored and the underside has an absence or very sparse coat of flat-lying hairs and a sparse coat of upright hairs,
- male flowers

Genetic profile

Microsatellite	VVS2	VVMD5	VVMD7	VVMD27	VRZAG62	VRZAG79	VVMD25	VVMD28	VVMD32
Allel 1	135	234	233	236	196	252	236	241	259

Microsatellite	VVS2	VVMD5	VVMD7	VVMD27	VRZAG62	VRZAG79	VVMD25	VVMD28	VVMD32
Allel 2	145	234	257	249	214	264	249	251	259

Resistance to soil parasites

1103 P displays high resistance to radicolae phylloxera. On the other hand, its resistance to the nematodes *Meloidogyne incognita* is moderate and it is sensitive to the nematodes *Meloidogyne arenaria*.

Adapt to environment

1103 P resists up to 30% total limestone, 17% of active limestone and a CPI of 30. Its resistance to ferric chlorosis can be considered moderate. It is well adapted to drought along with compact soil and with possible presence of substantial temporary spring humidity. 1103 P absorbs magnesium well. In addition, it is well suited to acidic soil with fairly good tolerance to chlorides.

Interaction with grafts and production objectives

1103 P has substantial vigor and tends to produce sucker growth. Blending with Syrah N produces good results but some affinity problems have been noted with Tempranillo N.

Aptitudes for plant propagation

1103 P wood production is low to medium (25 000 to 60 000 m³/ha), with a certain proportion being difficult to use (twisted or broken wood). Substantial growth of lateral shoots which contributes to the presence of tendrils, which makes this rootstock wood difficult to debud and cut. The propagation by cuttings capacity for 1103 P is moderate but its grafting capacity is very good.

Resistance to aerial parasites

1103 P is moderately susceptible to gallicolae phylloxera and is highly resistant to downy mildew.

Clonal selection in France

The 7 approved 1103 P clones carry the numbers 112, 113, 168, 202, 767, 768 and 1050.



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