



## Fercal



### Name of vine variety in France (and common name)

Fercal

### Breeder and year of obtention

Inra, 1959

### Genetic origin

Based on genetic analyses carried out in Montpellier, this variety was derived from the crossbreeding of Berlandieri Colombard number 1 B (derived from the crossbreeding of *Vitis berlandieri* and *Vitis vinifera* cv. Ugni blanc B) and 31 Richter (derived from the crossbreeding of *Vitis berlandieri* cv. Rességuier number 2 and *Vitis longii* cv. Novo-mexicana).

### Evolution of areas under rootstock nurseries

	1975	1985	1995	2005	2015
ha	18	40	67	192	218

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

30 000 ha. Champagne, Aquitaine, Charentes, Alsace, Midi-Pyrénées, Val de Loire, Provence-Alpes-Côte d'Azur, Languedoc-Roussillon, Rhône-Alpes

### Ampelographic description

Identification signs include:

- the tip of the young shoot which is half-opened with a very dense coat of flat-lying hairs and edges,
- the young leaves have a very dense coat of flat-lying hairs,
- the shoot has a ribbed contour, a circular section or slightly elliptical with a heavy coat of upright and flat-lying hairs,
- adult leaves are wedge-shaped to kidney-shaped, whole with an involute leaf blade, an open U-shaped petiolar sinus with short teeth compared to width,
- female flowers,
- berries are small, round-shaped and the skin is bluish black,
- the vine shoots have a moderate coat of upright hairs.

## Genetic profile

Microsatellite	VVS2	VVMD5	VVMD7	VVMD27	VRZAG62	VRZAG79	VVMD25	VVMD28	VVMD32
Allel 1	141	234	231	236	184	246	236	218	243
Allel 2	141	261	251	254	220	258	254	243	243

## Resistance to soil parasites

Fercal has a very high tolerance to radicolae phylloxera. It likewise displays a good degree of tolerance to the nematodes *Meloidogyne arenaria* and *Meloidogyne incognita* but has just moderate resistance to the nematodes *Meloidogyne hapla*.

## Adapt to environment

The principle characteristic of Fercal is its very good resistance to chlorosis and its adaptation to limestone soils. It resists up to 60% of total limestone, 40% of active limestone and to a CPI of 120.

This root stock tolerates fairly well humid spring conditions and its resistance to drought is moderate to good provided that the rooting is sufficiently deep. Fercal has difficulties with absorbing magnesium in the soil, particularly with excessive potassium fertilization. The graft varieties can display some magnesium deficiency symptoms with this root stock.

## Interaction with grafts and production objectives

Fercal shows a good affinity with graft varieties. Its speed of growth and fruit set is good. The vigor of this root stock is moderate to strong. Moderate influence on the vegetative cycle. In terms of fertility and yield, Fercal is well balanced and produces good quality products. Good results can be achieved with Syrah N.

## Aptitudes for plant propagation

The length and diameter of the internodes is moderate and the growth of quick buds is substantial. Wood production is moderate (30 000 to 60 000 m<sup>3</sup>/ha) and vine shoots must be conserved under good conditions to avoid any dehydration. The propagation by cuttings capacity of Fercal is very good and it displays moderate capacity for grafting with substantial wood pith, which needs to be well rehydrated before usage. Hormoning is not necessary and must be moderate when used. The stratification time necessary for this root stock is relatively short.

## Resistance to aerial parasites

Fercal is resistant to downy mildew and to anthracnosis with moderate sensitivity to gallicolae phylloxera.

## Clonal selection in France

The only approved Fercal clone carries the number 242.



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