



## Grenache N



### Name of the variety in France

Grenache

### Origin

This variety was originally from Spain and was introduced to France in the Middle Ages.

### Synonyms

In the European Union, Grenache is officially called by other names: Alicante (Italy), Cannonau (Italy), Tocai rosso (Italy), Garnacha Tinta (Spain), Grenache noir (Bulgaria, Cyprus, Croatia) and Grenache rouge (Greece). These synonyms are officially recognized in France regarding plant propagation material.

### Legal information

In France, Grenache is officially listed in the "Catalogue of vine varieties" on the A list and classified. This variety is also listed in the catalogues of other Member States of the European Union: Austria, Bulgaria, Croatia, Cyprus, Greece, Italy, Malta, Portugal and Spain.

### Use

Wine grape variety.

### Evolution of cultivated areas in France

	1958	1968	1979	1988	1998	2008	2018
ha	24886	51931	77669	86715	91619	98644	82966

### Descriptive elements

The identification is based on:

- the tip of the young shoot with a low density of prostate hairs,
- the green and shiny young leaves,
- the shoots with green internodes,
- the adult leaves with teeth with straight sides, no anthocyanin coloration of veins and petioles, a very twisted smooth leaf blade, and on the lower side of the leaves, no or a very low density of erect and prostate hairs,
- the yellow woody shoots,
- the round-shaped berries.

## Genetic profile

Microsatellite	VVS2	VVMD5	VVMD7	VVMD27	VRZAG62	VRZAG79	VVMD25	VVMD28	VVMD32
Allel 1	135	223	239	191	188	258	240	243	239
Allel 2	143	238	243	191	188	258	254	243	249

## Phenology

Bud burst: 6 days after Chasselas.

Grape maturity: late-season, 4 weeks after Chasselas.

## Suitability for cultivation and agronomic production

This variety is very vigorous (strong vine trunks), is sometimes sensitive to coulure and can have issues with lignification. Grenache has an erect bearing and must be pruned short in gobelet or cordon. It easily shows symptoms of magnesium deficiency. It is better adapted to slightly acidic, gravel or stony (pebble) terroirs rather than to very limestone white soil.

## Susceptibility to diseases and pests

This variety is very sensitive to downy mildew and phomopsis and is rather sensitive to bacterial necrosis, grey rot and vine moths. On the other hand, it is not very susceptible to mites and resists well against, ungrafted, *Meloidogyne arenaria* nematodes in the sands along the coast.

## Technological potentiality

Grenache's bunches are medium to large and the berries are medium in size. It has a very high sugar accumulation potential but the color decreases quickly as the yields increase. Acidity is generally low. Grenache produces sweet wines and very structured, ample and aromatic great wines suited to ageing, provided that they are planted in quality terroirs and that the yields are perfectly managed.

## Clonal selection in France

The twenty-six Grenache clones carry the numbers 70, 134, 135, 136, 137, 139, 224, 287, 362, 363, 432, 433, 434, 435, 513, 514, 515, 516, 517, 814, 1064, 1065, 1212, 1270, 1271 and 1272. A conservatory of more than 360 clones was planted in the Côtes du Rhône in 1998.

## Bibliographic references

- Catalogue des variétés et clones de vigne cultivés en France. Collectif, 2007, Ed. IFV, Le Grau-du-Roi, France.
- Documentary collections of the Centre de Ressources Biologiques de la Vigne de Vassal-Montpellier, INRAE - Montpellier SupAgro, Marseillan, France.
- Dictionnaire encyclopédique des cépages et de leurs synonymes. P. Galet, 2015, Ed. Libre&Solidaire, France.
- Traité général de viticulture, Ampélographie. P. Viala and V. Vermorel, 1901-1909, Ed. Masson, Paris, France.

## Description of clones certified in France

Clone no.	Identity and availability		Agronomic data		Technological data	
	Origin	Selection	Fertility	Production level	Sugar level	Color potential
	Year of certification	Agronomic references	Bunch weight	Vigor	Titriable acidity	Tannic structure
	Surface area used for propagation (year)		Berry size	Susceptibility to grey rot	Aromatic intensity	Oenological suitability
70	Vaucluse	ENTAV	medium to high	high	medium to high	medium
	1971	Languedoc-Roussillon Rhône-Valley	medium to high		medium	low to medium

Clone no.	Identity and availability		Agronomic data		Technological data	
	<i>Origin</i>	<i>Selection</i>	<i>Fertility</i>	<i>Production level</i>	<i>Sugar level</i>	<i>Color potential</i>
	<i>Year of certification</i>	<i>Agronomic references</i>	<i>Bunch weight</i>	<i>Vigor</i>	<i>Titration acidity</i>	<i>Tannic structure</i>
	<i>Surface area used for propagation (year)</i>		<i>Berry size</i>	<i>Susceptibility to grey rot</i>	<i>Aromatic intensity</i>	<i>Oenological suitability</i>
30.60 ha		medium			representative wines of the variety that sometimes lack structure	

ENTAV  INRA®

134	Aude	INRA	high	high	low	low to medium
	1972	Languedoc-Roussillon Rhône-Valley	medium to high	high		low to medium
	6.94 ha		medium			wines often lack structure and color

ENTAV  INRA®

135	Aude	INRA	low to medium	medium	medium to high	medium to high
	1972	Languedoc-Roussillon Rhône-Valley	medium	low		medium to high
	12.59 ha		medium			colored and structured wines

ENTAV  INRA®

136	Aude	INRA	medium to high	low to medium	high	medium to high
	1972	Languedoc-Roussillon Rhône-Valley	low to medium	low		medium to high
	22.85 ha		low to medium			balanced, colored and well-structured wines

ENTAV  INRA®

137	Aude	INRA	low to medium	medium	low	low to medium
	1972	Languedoc-Roussillon Rhône-Valley	medium			low to medium
	2.10 ha		medium			wines sometimes lack concentration

ENTAV  INRA®

139	Aude	INRA	low to medium	medium	medium	
	1972	Languedoc-Roussillon Rhône-Valley	medium			
	4.51 ha		low to medium			representative wines of the variety

ENTAV  INRA®

224	Vaucluse	ENTAV	medium	high	medium	low to medium
	1973	Languedoc-Roussillon Rhône-Valley	high			medium
	15.94 ha		medium			representative wines of the variety that sometimes lack structure

ENTAV  INRA®

287	Vaucluse	ENTAV	medium to high	high	low to medium	low to medium
	1973	Languedoc-Roussillon Rhône-Valley	medium to high			medium
	3.12 ha		medium			representative wines of the variety

ENTAV  INRA®

362	Vaucluse	ENTAV	low to medium	low	high	medium to high
	1975	Languedoc-Roussillon Rhône-Valley	low			medium to high
	18.33 ha		low			balanced, colored and well-structured wines

ENTAV  INRA®

363	Vaucluse	ENTAV	medium	medium	medium	medium to high
	1975	Languedoc-Roussillon Rhône-Valley	medium to high			medium
	4.59 ha		medium			representative wines of the variety

ENTAV  INRA®

432	Vaucluse	ENTAV	medium to high	medium	low to medium	
	1976	Languedoc-Roussillon Rhône-Valley	medium	high		
						representative wines of the variety

ENTAV  INRA®

433	Vaucluse	ENTAV	medium to high	medium	medium to high	medium to high
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Clone no.	Identity and availability		Agronomic data		Technological data	
	<i>Origin</i>	<i>Selection</i>	<i>Fertility</i>	<i>Production level</i>	<i>Sugar level</i>	<i>Color potential</i>
	<i>Year of certification</i>	<i>Agronomic references</i>	<i>Bunch weight</i>	<i>Vigor</i>	<i>Titration acidity</i>	<i>Tannic structure</i>
	<i>Surface area used for propagation (year)</i>		<i>Berry size</i>	<i>Susceptibility to grey rot</i>	<i>Aromatic intensity</i>	<i>Oenological suitability</i>
1976	Languedoc-Roussillon Rhône-Valley	medium			medium to high	
1.52 ha		medium			representative wines of the variety	

ENTAV  INRA®

434	Vaucluse	ENTAV	medium to high	medium to high	medium to high	medium
	1976	Languedoc-Roussillon Rhône-Valley	medium	high		medium to high
	3.87 ha		medium			representative wines of the variety

ENTAV  INRA®

435	Vaucluse	ENTAV	medium to high	low to medium	high	medium to high
	1976	Languedoc-Roussillon Rhône-Valley	low to medium			medium to high
	10.83 ha		low to medium			balanced, colored and well-structured wines

ENTAV  INRA®

513	Non précisée	ENTAV	low	low	high	medium to high
	1976	Languedoc-Roussillon Rhône-Valley	low to medium			medium to high
	2.17 ha					balanced and well-structured wines

ENTAV  INRA®

514	Ardèche	ENTAV	low to medium	medium	medium to high	
	1976	Rhône-Valley	medium			
						representative wines of the variety

ENTAV  INRA®

515	Ardèche	ENTAV	medium to high	medium to high	medium to high	
	1976	Languedoc-Roussillon Rhône-Valley	medium	low		
	1.25 ha					representative wines of the variety

ENTAV  INRA®

516	Hérault	ENTAV	medium	medium to high	medium	medium
	1976	Languedoc-Roussillon Rhône-Valley	medium to high			medium
	10.65 ha		medium to high			representative wines of the variety

ENTAV  INRA®

517	Hérault	ENTAV	medium	medium to high	low to medium	
	1976	Languedoc-Roussillon Rhône-Valley		medium to high		
						representative wines of the variety

ENTAV  INRA®

814	Espagne	ENTAV	medium	high	low	low to medium
	1985	Languedoc-Roussillon Rhône-Valley	high			low to medium
	0.35 ha		medium to high			representative wines of the variety that sometimes lack structure

ENTAV  INRA®

1064	Espagne	CA 84 - ENTAV	low	low	medium to high	medium to high
	2002	Rhône-Valley	low to medium		medium	medium
	0.21 ha		medium			balanced wines with a good tannic structure

ENTAV  INRA®

1065	Espagne	CA 84 - ENTAV	high	low to high	high	medium to high
	2002	Rhône-Valley	low		low to medium	medium
	0.44 ha		medium to high			balanced wines with a good tannic structure

ENTAV  INRA®

1212	Vaucluse	CA 84 - IFV	high	low	low to medium	high
	2014	Rhône-Valley	low	medium	low to medium	medium to high

Clone no.	Identity and availability		Agronomic data		Technological data	
	Origin	Selection	Fertility	Production level	Sugar level	Color potential
	Year of certification	Agronomic references	Bunch weight	Vigor	Titrate acidity	Tannic structure
	Surface area used for propagation (year)		Berry size	Susceptibility to grey rot	Aromatic intensity	Oenological suitability
		very low	low		balanced, colored and well-structured wines	

ENTAV  INRA®

1270	Espagne	Pépinières Mercier - IFV				
	2018					

ENTAV  INRA®

1271	Vaucluse	Pépinières Mercier - IFV				
	2018					

ENTAV  INRA®

1272	Espagne	Pépinières Mercier - IFV				
	2018					

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