

# Grenache

### Synonyms

In Spain the cultivar is known as Garnacha, and in France it is called Grenache noir. It is also referred to as Cannonao or Cannonaddu on the island of Sardinia, and in southern Italy as Granaccia or Alicante.

#### Source

Grenache is one of the most widely planted wine grape varieties in the world, with vast acreages encompassing the southern Mediterranean wine region. It is generally believed to have originated from the northern Spanish province of Aragon. The variety spread from this area to the Rioja and Navarre regions, then moved both north and south of the Pyrenees Mountains. Grenache was first planted in France in the Longuedoc region in the early eighteenth century, and it reached the southern Rhône Valley by the nineteenth century. In the southern Rhône, Grenache is generally blended with Syrah and other varieties to produce common red table wines (Cotes-du-Rhône) as well as the highly regarded Chateauneuf-du-Pape.

Grenache was probably first introduced to California by Charles Lefranc, a prominent Santa Clara wine grower, in 1857. Its versatility made it popular in the planting boom in the late 1800s. Acreage grew steadily after Prohibition, especially in the Central Valley for dessert and rosé table wines. It is now grown in diverse climatic regions for blending and the production of varietal red and blush table wines.

# clusters

Medium to large; broad conical, well-filled to compact; medium-length peduncles.

berries

Small to medium; round to short oval; purple, much lighter in sunlight.

#### Description

**Clusters:** medium to large; broad conical, well-filled to compact; medium-length peduncles.

Berries: small to medium; round to short oval; purple, much lighter in sunlight.

Leaves: medium; mostly entire with shallow superior lateral sinus; narrow U-shaped petiolar sinus; short, sharp teeth; upper leaf surface very smooth, waxy (like wax paper) green; glabrous on lower surface.

**Shoot tips:** downy tips; young leaves mostly green with slight bronze-red highlights.

## Growth and Soil Adaptability

The vine has potentially high vigor in medium- to fine-textured soils (sandy loam to clay loam) and low vigor on sandy soils. It is more vigorous than Chardonnay, but generally less vigorous than Cabernet Sauvignon. Canes are thick with an upright growth habit. Own-rooted plantings on shallow soils should be avoided in the San Joaquin Valley.

#### Rootstocks

No known incompatibilities exist with commonly used rootstocks. In coastal regions, where phylloxera resistance is desired, Grenache is generally grafted onto moderate-vigor rootstocks such as 101-14 Mgt and 3309C. In hillside plantings, or in areas where soil depth or fertility is limited, 110R and 1103P may be used. In the San Joaquin Valley, where nematode resistance is desired, Freedom and Harmony are commonly used.

#### Clones

There are two old California registered selections available of Grenache (now known at FPS as Grenache noir to avoid confusion with other forms of Grenache). Recent studies indicate that Grenache noir FPS 01A, a field selection from California, is fruitful, has smaller berries, and exhibits less propensity for bunch rot than FPS 03, a field selection from the UC Jackson Foothill Experiment Station. Although selection 03 produces larger yields than selection 01A, because its berries and clusters are larger and more prone to rot and its fruit maturation is delayed, it is not recommended. The diversity of Grenache planting stock in California has increased dramatically with new imports from Italy and France. Grenache noir FPS 04 (Rauscedo VCR 3) is available as California certified stock. Grenache noir ENTAV-INRA® 70, 136, 362, 513, and 515 are also commercially available in California.

Additional testing is needed, particularly in coastal regions, to determine the potential merits of these selections.

#### Production

Grenache is a consistent producer, with yields that may range from 4 to 8 tons per acre in coastal regions and 8 to 14 tons per acre in the San Joaquin Valley.

#### Harvest

**Period:** A midseason ripening variety, typically harvested from mid- to late September in the San Joaquin Valley. In some cases harvest may be earlier if a lower alcohol rosé or blush wine is produced. In coastal regions, it is harvested from mid-September to mid-October.

Method: Clusters have thick peduncles, requiring that knives or shears be used for fruit removal with hand harvest. Grenache is difficult to machine harvest with canopy shakers, with most fruit removed as single berries and with medium to heavy juicing. Its large vine framework interferes with rod penetration, and dead spur removal is a problem. Harvest with trunk shakers is moderately difficult, with medium juicing. Most fruit is removed as single berries. Considerable force is required to remove the fruit.

# leaves

Medium; mostly entire with shallow superior lateral sinus; narrow U-shaped petiolar sinus; short, sharp teeth; upper leaf surface very smooth, waxy (like wax paper) green; glabrous on lower surface.

# shoot tips

Downy tips; young leaves mostly green with slight bronze-red highlights.

#### Training and Pruning

Grenache is commonly trained to bilateral cordons and pruned to 12 to 16 two- to three-node spurs per vine. Many older vineyards are head trained and spur pruned (14 to 18 two- to three-node spurs retained per vine). Quadrilateral cordon training and spur pruning (approximately 24 two- to three-node spurs retained per vine) is used to a limited extent in the San Joaquin Valley where anticipated vine vigor is high due to deep, fertile soils and vigorous rootstocks. If quadrilateral cordon training is used, careful attention must be paid to avoid overcropping.



Clusters are subject to bunch rot at harvest, thus basal leaves may be removed following fruit set to improve the fruit zone microclimate. In coastal regions shoot thinning is also performed to reduce canopy density and decrease crop load. Its upright growth habit makes this variety well suited for vertical-shoot-positioned systems in coastal regions. The traditional California two-wire vertical trellis is commonly used in the northern and central San Joaquin Valley.

#### Insect and Disease Problems

Grenache is highly susceptible to Eutypa dieback and moderately susceptible to Phomopsis and Botrytis shoot blight diseases in cool, wet springs. Its moderately compact clusters are prone to bunch rot near harvest.

#### Other Cultural Characteristics

Vine stress due to overcropping, insect damage, or other factors may result in delayed, erratic budbreak the following spring. Overcropping



may also cause the vines to enter an alternatebearing pattern in which yields fluctuate drastically from year to year. Wood maturity may also be a problem in highly vigorous vineyards, particularly if vines grow late into the season. Winter injury can be a problem with vigorous or overcropped vines during the second through fourth years of vine training. Poor light exposure into the fruit zone during bloom, caused by dense canopy growth, may reduce fruit set and result in excessively loose or straggly clusters.

## Winery Use

Wine color, body, and aging potential are typically low when fruit is grown in warm regions. Grenache is used primarily for the production of varietal rosé and blush wines in the San Joaquin Valley. It is commonly blended with Syrah, Mourvèdre, or other varieties for the production of Rhône-style red table wines in coastal regions.

-Nick K. Dokoozlian