



# Tempranillo

## Synonyms

In Spain, it is known as Tempranillo de la Rioja, Tinto de la Rioja, Tinto del Pais, Grenache de Logrono, Jacivera, Tinto de Toro, and Tinto Madrid. In the La Mancha region of Spain, it is called Cencibel; in Ribero del Duero, Tinto Fino Ull de Llebre, and in Catalonia, Ojo de Liebre. In Portugal, it is called Tinta Roriz and Aragonez. Previously it was known as Valdepeñas in California.

## Source

The variety is most likely a selection from northern Spain, but some believe that Tempranillo originated in southern France as a natural hybrid of Cabernet franc and Pinot noir.

## Description

**Clusters:** medium to large; cylindrical to long conical, compact; medium-length peduncles.

**Berries:** medium; round to pear-shaped with a flat apex; deep blue-black.

**Leaves:** large; deeply 5-lobed with overlapping lateral lobes, lyre-shaped petiolar sinus; large, sharp teeth; moderate to dense tufted hair.

**Shoot tips:** felty with rose margins; young leaves yellow-green with bronze-red patches.

## Growth and Soil Adaptability

Vines have moderately high vigor on deep, fine sandy loam to clay loam soils. Budbreak tends to be similar to Zinfandel but ripens earlier. The shoots are semi-erect and the canopy is more open than that of Zinfandel. Tempranillo seems to grow well where Zinfandel does well. The vine appearance is similar to Zinfandel's, and the two may be found mixed into old vineyard plantings. Vine spacing should be about 8 to 10 feet down the vine row for vertical-shoot positioning or standard bilateral cordons. Spacing down the row of less than 8 feet may be appropriate on low-vigor rootstocks or in sites of poor soil. For horizontally divided quadrilateral vines, spacing should be 6 to 7 feet. Moderate-vigor rootstocks should be used for most sites.

## Rootstocks

Moderate- to low-vigor rootstocks are better choices, especially if close spacing is desired. Many older established blocks are mostly own-rooted vines. Freedom may be acceptable where nematodes are a concern; better overall choices include 101-14 Mgt, Kober 5BB, 110R, or 1103P. For close spacing, or where less vigor is desired, 3309C, Schwarzmann, or 1616C may be needed.



## clusters

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## berries

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## Clones

Tempranillo FPS 02 and 03, from Spanish sources, are available from UC Davis. Under another synonym for Tempranillo, registered Valdepeñas FPS 03 was established from the University's Jackson Field Station collection. In addition, Tinta Roriz 01 (also a synonym for Tempranillo) is registered at FPS; Harold Olmo imported this selection from Portugal in 1984. No viticultural or enological records exist to indicate distinctive differences in growth, production, or resultant wines.

## Production

Tempranillo vines are productive to very productive, capable of bearing medium to large crops of 8 to 12 tons per acre. High yields may sacrifice color intensity and fruit flavors, significantly reduce acid level, and increase pH while delaying harvest.

## Harvest

**Period:** An early season variety, harvested in late August to mid-September.

**Method:** Hand harvest is facilitated by large clusters, which are often free-hanging and accessible, with an easily cut cluster stem. Machine harvest by trunk shaker is intermediate in difficulty. The potential for juicing of berries at harvest is light to medium, but not severe as berry skins are relatively tough. Harvest by pivotal striker is also intermediate, but newer trunk shaker or canopy shaker (bow-rod) heads may reduce the possibility of juice losses.

## Training and Pruning

Tempranillo is well suited to spur pruning and bilateral cordon or quadrilateral training. It is also well suited to head training (vertical cordon). A spur count of 14 to 20 two-node spurs is acceptable, depending on rootstock, soil depth, and soil texture. Cane pruning is not suggested but may work with cluster thinning.



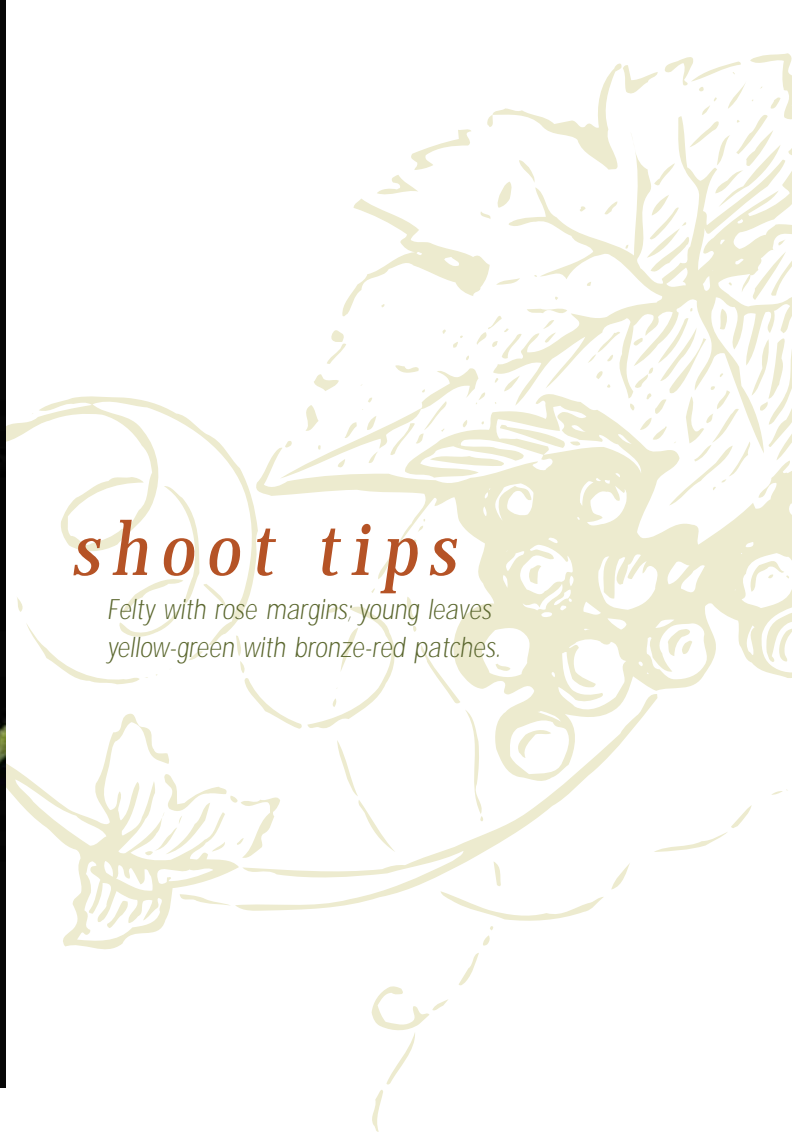
## leaves

*Large; deeply 5-lobed with overlapping lateral lobes, lyre-shaped petiolar sinus; large, sharp teeth; moderate to dense tufted hair.*



## shoot tips

*Felty with rose margins; young leaves yellow-green with bronze-red patches.*



### Trellising and Canopy Management

Vertical-shoot-positioned systems are recommended. High-vigor sites may benefit from a divided canopy system such as a quadrilateral cordon or GDC type trellis, but cross-arm foliage wire may be required to avoid excessive fruit exposure in hotter regions.

### Insect and Disease Problems

The variety is moderately sensitive to powdery mildew and downy mildew but very resistant to any bunch rot, either Botrytis or sour bunch rot. It is very susceptible to Eutypa dieback disease.

### Other Cultural Characteristics

At budbreak Tempranillo is above average in its tolerance to cold spring temperatures. Berries can sometimes set irregularly, especially on sandy, zinc-deficient soils. Berry skins are relatively tough. Fruit holds well on the vine during the late stages of maturity. Acid levels can be low and pH marginally high in very warm years or hotter regions. Fruit color is better and develops more uniformly compared to Zinfandel.

### Winery Use

Tempranillo produces good- to excellent-quality wines with good color under optimum conditions, especially at lower crop levels. The wine can have distinctive varietal character. Its uses range from good blending varietal to high-quality varietal table- or port-wine blends. Future interest in Tempranillo as a premium wine should increase for all areas, although lack of marketing and consumer awareness may limit its overall importance.

—Paul S. Verdegaal