



# Sangiovese

## Synonyms

Clonal diversity and geographical designations have resulted in a profusion of synonyms in Italy. The two main sub-types are Sangiovese Grosso and Sangiovese Piccolo. Sangiovese Grosso, also known as dolce and gentile, is synonymous with Sangiovese di Lamole of the Greve-Firenze region of Chianti, the Prugnolo gentile of Montepulciano, and the Brunello of Montalcino. Sangiovese Piccolo, also known as forte and montanino, is synonymous with Sangiovese di Romagna, Sangiovese del Verrucchio, and Sangioveto. More recently, Italians are questioning the entire Sangiovese Grosso/Piccolo designation and believe that the diversity of the cultivar makes a separation of the two groups questionable.

## Source

Sangiovese is the most planted variety in Italy (about 10 percent of total acreage), especially in Tuscany, where it is thought to have originated, with documentation as far back as the sixteenth century. It is also grown extensively in the Mendoza province in Argentina, increasingly in California, and to a limited extent in Australia. Plantings in California date back to about 1880.

## Description

**Clusters:** medium; wide and long conical, well-filled; long peduncles.

**Berries:** medium; oval; blue-black. Many clonal types including “piccolo” types with very small berries; some berries are seedless due to fanleaf virus infection.

**Leaves:** large; 3-lobed with large, triangular apical lobe; open U-shaped petiolar sinus; narrow lateral sinuses, inferior very shal-

low; short, sharp teeth; lower leaf surface mostly glabrous with scattered tufted hair.

**Shoot tips:** felty; young leaves green with yellow-bronze highlights.

## Growth and Soil Adaptability

The vine is of medium-high vigor, and growth is semi-upright to trailing, with long, strong shoots. Recommended in-row spacing is 6 or 7 feet on high-vigor sites and 4 or 5 feet on low-vigor sites. Wineries will more often use Sangiovese on shallow, more limited soils to avoid high vigor that can be detrimental to wine quality. It is adapted to cool to warm climate regions.

## Rootstocks

Various rootstocks have been successfully used in California, including Teleki 5C, SO4, Kober 5BB, 420A, 110R, 3309C, 101-14 Mgt, and St. George. High-vigor stocks such as 140Ru or Freedom should be used with caution on fertile soils and when needed for lime or nematode tolerance.

## Clones

Clonal diversity in Italy is great, with at least 35 clones from different regions registered in the National Catalogue. Sangiovese FPS 02, 03, and 04 have shown significant



## clusters

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## berries

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differences in fruit characteristics and composition in vineyard trials replicated in California. Sangiovese FPS 02 is the most fruitful, sometimes with smaller berries. However, it may require more cluster thinning than selection 03 to achieve vine balance. Selection 04 tends to have heavier berries, more bunch rot, and poorer fruit composition than the others. Newer Italian imports, yet to be evaluated under California conditions, include Sangiovese FPS 07 (VCR 6), 08 (VCR 19), 09 (VCR 30), 10 (VCR 23), and 13 (VCR 102).

## Production

Typically, production is 5 to 10 tons per acre. While 15 tons per acre can be achieved in warm, vigorous sites, it results in seriously delayed fruit maturation and poor fruit composition. Yields of 3 to 4 tons per acre are common in low-vigor sites. Crop load balance is essential to wine quality.

## Harvest

**Period:** A mid- to late-season variety, harvested in mid-September to mid-October.

**Method:** The large, often well-exposed clusters make hand harvest easy. Canopy shaking results in easy to medium fruit removal with medium juicing. More whole clusters and cluster parts are removed than with trunk shaking. Trunk shaking results in easy to medium fruit removal with light juicing. Fruit is removed as single berries and some whole clusters.



## leaves

*Large; 3-lobed with large, triangular apical lobe; open U-shaped petiolar sinus; narrow lateral sinuses, inferior very shallow; short, sharp teeth; lower leaf surface mostly glabrous with scattered tufted hair.*

## shoot tips

*Felty; young leaves green with yellow-bronze highlights.*



### Training and Pruning

Sangiovese is mostly trained to bilateral cordons and pruned to 12 to 16 two-node spurs. Higher node numbers may delay fruit maturation due to numerous, large clusters. Higher-vigor sites may utilize a quadrilateral cordon, usually requiring some cluster thinning. In Italy, growers believe it is important to have a large space (up to 10 inches) between spurs. Usually they prune to a single bud.

### Trellising and Canopy Management

VSP is used in lower-vigor sites, while a single curtain, Smart-Dyson, GDC, or lyre system can be used in higher-vigor sites. Some shoot thinning and leaf removal may be needed, but the vine does not typically produce a dense canopy due to the moderately long internodes and minimal lateral shoot development. The clusters are sensitive to sunburn with excessive exposure.

### Insect and Disease Problems

Summer bunch rot can be a problem in young vineyards with more compact clusters, especially in warmer climates. It is susceptible to Botrytis bunch rot with fall rains. Leafroll virus should always be avoided due to lower fruit anthocyanin content.

### Other Cultural Characteristics

Crop load balance is the most important management concern due to Sangiovese's tendency to produce two or three clusters per shoot, with clusters averaging weights at  $\frac{2}{3}$  to  $1\frac{1}{3}$  pounds. Overcropping readily contributes to delayed fruit maturation and low fruit color, poor sugar/acid balance, and inferior wine aroma. Shoot thinning in the spring and/or cluster thinning at veraison are commonly practiced.

### Winery Use

Styles range from rosé to full-bodied red wine, but most typically, Sangiovese is used for light- to medium-bodied Chianti-style wine. While 100 percent varietal wines are common, blends to add complexity and color are widely used. Blending varieties commonly used are Cabernet Sauvignon, Merlot, Cabernet franc, Zinfandel, or Ruby Cabernet, most often in percentages ranging from 10 to 20 percent.

—L. Peter Christensen