



# Barbera

## Synonyms

Italian geographical names are sometimes used, such as d'Asti and del Monferrato.

## Source

Barbera is a leading wine grape of Italy (second in planted acreage), particularly in the Piedmont region where it is thought to have originated. It is also important in Argentina and can be found in other South American countries as well as in Croatia. John Doyle first imported the grape into California and produced his first Barbera vintage in 1884 from vines planted in Cupertino. In the 1890s, the Italian Swiss Colony Winery used it successfully for several of its table wines. Yet it did not regain popularity after Prohibition until the rapid acreage expansion in the 1970s and 1980s, when it became a prominent red wine variety in the San Joaquin Valley, mostly for blending. In the coastal and foothill districts there is renewed interest in Barbera as a quality varietal wine grape and as a blend.

## Description

**Clusters:** medium; conical, well filled to compact, can be winged; long peduncles.

**Berries:** medium; long oval, dark purple-black; relatively high acidity at maturity.

**Leaves:** medium; deeply 5-lobed, U-shaped petiolar sinus and superior lateral sinus that often overlap; relatively large, sharp teeth; wooly hair on lower surface.

**Shoot tips:** woolly and white with rose margin; youngest leaves have bronze-red highlights over lime-green background. Internodes are relatively long with straggly growth.

## Growth and Soil Adaptability

The vine is moderately vigorous when grown on its own roots on medium- to fine-textured soils (sandy loam to clay loam); it is not vigorous enough on its own roots in sandier soils (loamy sands and sands). Its growth is trailing, and the vine canopy is somewhat open; its foliage is not dense except with extreme vigor. The canes are slender and attach themselves with strong tendrils, making pruning and brush removal from trellis wires difficult. The vine often produces a moderate second crop. Recommended in-row spacing is 6 or 7 feet. Single canopy vineyards in the San Joaquin Valley should have row spacing of 8 to 10 feet.

## Rootstocks

Barbera has no known incompatibilities. Freedom and some Harmony rootstocks have been used in the San Joaquin Valley for nematode resistance and increased vine vigor in sandy loam and loamy sand soils. Ramsey may be needed in coarse, sandy soils. Phylloxera rootstocks successfully used in most California districts include Teleki 5C, Kober 5BB, 110R, 3309C, 101-14 Mgt, and 1103P; experience with other rootstocks was limited to older vineyards planted on their own roots or AXR #1 and St. George rootstocks. In Italy, 5BB and 420A are popular rootstocks for this variety.



## clusters

*Medium; conical, well-filled to compact, can be winged; long peduncles.*

## berries

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## Clones

Most of the plantings in the 1970s and 1980s were of Barbera FPS 01, also known as the Marshall (California) clone. Later this selection became non-registered due to the discovery of a leafroll virus in some wood sources. Subsequently, Barbera FPS 02, a virus-negative selection from Italy (Barbera Rauscedo 6) was registered. Barbera FPS 02 proved to be more fruitful and productive than selection 01, but it also produced larger berries and clusters that contributed to greater cluster compactness. A new virus-negative subclone of selection 01 that is smaller-berried and lower yielding is now available as Barbera FPS 06. It has fruit composition preferred to that of FPS 02. Recent clonal importation from Italian collections, including Barbera FPS 03 (Barbera CVT 171), FPS 04 (Barbera CVT 84), FPS 05 (Barbera CVT 171), FPS 07 (Barbera VCR 19), and FPS 08 (Barbera VCR 15) has increased diversity of Barbera planting selections in California.

## Production

Vines usually bear 6 to 9 tons per acre, except in hillside and non-irrigated sites where lower yields are normal. Yields are also lower in the Sierra foothills, even in irrigated vineyards.

## Harvest

**Period:** A midseason variety, harvested in mid-September to early October.

**Method:** The long, green peduncles make hand harvesting easy. Barbera is also one of the best varieties for machine harvesting. With canopy shaking fruit is easy to moderately easy to remove as single berries with some cluster parts. Juicing is medium. A trunk shaker removes fruit easily to moderately easily as single berries with some cluster parts and a few whole clusters. Juicing is light to medium.

## Training and Pruning

Vines are most commonly trained to bilateral cordons and pruned to 12 to 16 spurs with two to three nodes each. Quadrilateral cordon training for crop load balance may be practiced where the vines are highly vigorous. Machine-hedge or non-selective pruning has been successful, resulting in increased yields with favorable fruit composition but some delay in fruit ripening.



## leaves

*Medium; deeply 5-lobed, U-shaped petiolar sinus and superior lateral sinus that often overlap; relatively large, sharp teeth; wooly hair on lower surface.*

## shoot tips

*Woolly and white with rose margin; youngest leaves have bronze-red highlights over lime-green background. Internodes are relatively long with straggly growth.*

### Trellising and Canopy Management

The small to medium leaves and long internodes create a somewhat open canopy, exposing clusters and minimizing the need for canopy manipulation. San Joaquin Valley vineyards are most commonly trellised as a single curtain with the cordon wire at 42 to 54 inches. A single foliar support wire at 52 to 64 inches may be beneficial. Additional foliar wires are not recommended in warm districts or high-vigor sites. They increase the difficulty and cost of pruning due to the numerous strong tendrils that attach to foliar wires. GDC systems may benefit from foliage catch wires in warm districts. Vertical-shoot-positioned systems have also worked well even in the northern San Joaquin and Sacramento valleys. Lyre systems are sometimes used in vigorous coastal sites, but more acreage is head-trained in the Sierra foothills.

### Insect and Disease Problems

Leafroll virus is moderate to severe in plantings before the early 1970s. The availability of heat-treated, virus-free selection FPS 01 in the early 1970s ended the problem in subsequent new plantings. Barbera is highly susceptible to Pierce's disease and very susceptible to downy mildew. Aerial crown gall following low temperature injury in the spring is common.



### Other Cultural Characteristics

Barbera has low tolerance to sodic (alkali) or saline soils. Excessive flower shatter at bloom has occurred on vigorous vines with high nitrogen. Own-rooted vines tend to sucker at their base, and it is often necessary to remove watersprouts from trunks and cordons.

### Winery Use

Barbera is popular in warm districts such as the San Joaquin Valley because of its high fruit acidity retention; it is mostly used for blending in such districts. In cooler regions and at lower yields it produces quality varietal wines of varying styles.

—L. Peter Christensen