

How Much Wine Can a Small Vineyard Produce?

*Ed Weber, Donna Hirschfeld, and Rhonda Smith
UC Davis Extension Small Vineyard Series*

Many people are interested in growing grapes for homemade wine. This worksheet should help you predict your production capabilities. Grape crops vary from year to year, but it's important to estimate yield in order to have enough barrels and other winemaking equipment on hand.

The following steps will show you how to estimate the quantity of wine that could be produced from your small vineyard.

Step 1: How many vines will you plant?

You must first look at your site and determine how many vines you are likely to plant. Decide how far apart the vine rows will be, and how the vines will be spaced within the row. Then, by measuring the boundaries of the area to be planted, you can calculate the number of vines to be planted.

Let's assume your rows will be 8 feet apart and the vines are 6 feet apart in the row. You estimate there is room for 10 rows, each containing 20 vines. Your total planting will be 200 vines.

Step 2: How many acres is this?

There are 43,560 square feet in an acre. Dividing 43,560 by the product of your row spacing times your vine spacing tells you the number of vines that will fit on an acre of land at the spacing.

To determine vineyard acreage, divide your number of vines by the number of vines per acre at your spacing.

For this example, the rows are 8 feet apart and vines are 6 feet apart. At this spacing, there are 907 vines per acre. Your 200 vines will cover 0.22 acres at this spacing

$$43,560 / (8 \times 6) = 907.5 \quad 200 / 907 = 0.22$$

Step 3: How much fruit will be produced?

Vineyard yields vary considerably from site to site and from year to year. Soil type, grape variety, rootstock, spacing, and other factors all influence yield. For this exercise you should run numbers using

several potential yields to see the range of production you might expect.

For most small vineyards, it is better to be conservative and use relatively low estimated yields of 3–5 tons per acre. It is possible to have yields of 6 tons per acre or more, but you should not anticipate these high yields unless you have specific reasons to do so.

At 3 tons per acre, your vineyard will produce about 0.7 tons of fruit. Four tons per acre would result in about 0.9 tons, while 5 tons per acre would produce about 1.1 tons of fruit.

Acres x tons/acre = tons produced

$$0.22 \times 3 = 0.66$$

$$0.22 \times 4 = 0.88$$

$$0.22 \times 5 = 1.10$$

Step 4: How much wine will this make?

A ton of juice typically yields about 165 gallons of juice or must. Depending on your system for pressing, and losses along the way, the final amount of wine may be closer to 155 gallons per ton.

Other measurements of interest:

A standard wine barrel contains 60 gallons.

A case of wine contains 2.38 gallons.

A half ton macrobin is great for small scale red winemaking. You can pick 1000 pounds of fruit into it and easily move it in the back of a pickup. After crushing you can ferment and punch down appx. 70–80 gallons of must in the same bin. With light pressing this will yield 1 barrel, plus 10 gallons for topping the barrel.

For this example, assuming you produce 1 ton of grapes, you can expect 155 gallons of juice and wine. You need 2 barrels for storage, along with some smaller containers. Your final production should be about 65 cases of wine.

