Consider a Backyard Vineyard

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A gratifying challenge

Washington is the second-largest premium wine- producing state in the U.S. For those home gardeners willing to accept the challenge, growing wine grapes can be interesting and gratifying. The key to successful growing of wine grapes in the maritime climate of Western Washington is extensive **preparation** and **planning.**

First, fortify your knowledge base and assess your level of interest by becoming familiar with terminology, seasonal development and fruiting cycle of grapevines, recommended *viticulture* (the science or practice of growing grapevines) and *enology* (the study of wine-making) practices for your region You should also understand all state regulations, quarantines and recommendations for planting "clean" stock.

IMPORTANT NOTE: It is **illegal** to bring plant material from vineyards outside Washington State without going through proper quarantine. Failing to adhere to strict quarantines in Washington may result in hefty fines, or worse, bringing in diseases and pests that could severely damage the commercial grape industry. It is best to purchase only certified plant material from a reputable nursery. A list of nurseries that provide certified stock is available from the website of "The Clean Plant Center-Northwest Grapes." (http://cpcnw.wsu.edu/grapevines/).

Next, consider your general expectations. Do you have a good site with enough space and an appropriate climate for growing healthy, productive grapevines? Is it possible to grow a variety on your site that will produce a wine you enjoy drinking? Are you willing to invest the significant time required (usually three or more years) to cultivate productive vines?

You must thoroughly assess your potential growing site. Grapes require full sun, good soil drainage and adequate water during our typically dry summer months. Temperature (heat accumulation during the growing season) and length of growing season are major limiting growth factors. Grapes require a minimum of 160 frost-free days and a base temperature of 50˚ F to grow, and accurate measurement of ***growing degree days*** (GDD) at your site will determine which varieties can be grown.

Slope and aspect of the site determines the sun exposure on the vines with the goal being balanced exposure. Most vineyards are laid out with rows in a north-south direction, so a south-facing to west-facing slope is best. North-south rows are also less susceptible to wind damage than rows crossing prevailing winds, and good wind flow can dry foliage and reduce frost risk and disease pressure. Very steep slopes (greater than 10%) are to be avoided. Avoid frost pockets or other areas of cold air ponding.

Four short rows of grapes are all it takes for this homeowner to have a wine-producing vineyard. *Photo by Nancy Crowell / WSU Skagit County Master Gardeners.*

Determine the depth of your water table. Grapes do not tolerate poor drainage and will not grow well in soils with an impervious clay hardpan. Vine roots can grow from 18 inches up to 40 feet in soil depth, and excessive groundwater can cause uncontrollably vigorous grapevine canopy development.

Grapes grow best in soil with a pH range of 6.5 to 7.5. Do a soil test at your site to determine pH, nutrient status and soil properties. Check the National Resources Conservation Service (USDA) online "Web Soil Survey" for different soil properties in your area at http://websoilsurvey.sc.egov.usda.gov.

Your next critical decision is selection of the best variety and clone for your site, and whether or not to use rootstock. Select a variety that is recommended for your site's calculated GDD accumulation. Plan to allow one year for the nursery to fulfill your order for own-rooted grapevine cuttings, and up to 16 months for grafted, rooted cuttings. Rootstock may be more expensive than own-root cuttings, but has many advantages that make it a good choice for western Washington. Rootstock is often bred for resistance to *phylloxera* and parasitic nematodes that feed on vine roots and spread disease to the grapes. They may be bred to tolerate lower soil pH, speed ripening or improve drought tolerance.

Irrigation is needed during vineyard establishment to encourage a vigorous root system in young plants during the first year. Supplemental irrigation during long summer dry periods is beneficial for an established vineyard. Drip irrigation is preferred for its efficient water usage and adaptability for fertilization.

The amount of space needed to plant depends on the type of trellis system selected to train the vines, and the space between rows. Research various trellis systems to determine which type is best suited to the strength of soil at your site, paying special attention to the material used and the proper installation of end posts to prevent trellis collapse. A generous estimate of space required is spacing vines six to eight feet apart in rows with eight to ten feet between rows. Home winemakers may want to plant twenty or more grapevines to yield enough juice, but fruit production depends on grape variety and management.

Finally, learn recommended planting, training and pruning methods, and nutrient and pest management regimes. After your vineyard is established, setting up a vineyard management calendar can be invaluable. For home gardeners, taste is the best measure of ripeness to determine harvest time. With patience, persistence, and time, you can enjoy sipping your own wine!

RESOURCES:

- Moyer, M.M. and Henick-Kling, T. March 2014. *Growing Winegrapes in Maritime Western Washington.* WSU Extension Publication #EM068E
- Whiting, D. and Kingsbury, M. October 2014. *Growing Grapes in Colorado Gardens.* Colorado State University Extension Publication, CMG GardenNotes #764.
- Strick, B.C. June 2006. *Growing Grapes in Your Home Garden.* Oregon State University Extension Service Publication #EC1305 (NOTE: some specific information in this publication has been updated in later, more detailed publications on specific growing topics, e.g. pest management, etc.)
- Carroll, B. March 2014. *Growing Grapes in the Home Garden.* Oklahoma State University Extension Service Publication #HLA-6246
- WSU Extension and PNW Publications: https://pubs.extension.wsu.edu
- WSU Viticulture and Enology Research and Extension Program: http://wine.wsu.edu/research-extension/backyard-vineyard/
- University of California GardenWeb: http://cagardenweb.ucanr.edu/Growing_Grapes_in_the_California_Garden/
- WSU News Posts. September 9, 2015: https://news.wsu.edu/2015/09/09/study-shows-growing-impact-of-washington-wine-industry/

Note: some hyperlinks in this article have been updated since its initial publication.