

# VINEYARD SITE SELECTION

## WHAT DO I NEED TO KNOW WHEN CHOOSING A VINEYARD SITE?

Before purchasing wine grape property, make sure you have a contract with a winery or have a potential winery interested. Refer to Contracts checklist.

### CHECKLIST OF QUESTIONS TO ANSWER:

Developing a vineyard is capital intensive, but a well-planned and properly established vineyard can be productive for 20 to 40 years. Taking steps to optimize yield and quality has a direct impact on the long-term economic success of the vineyard.

#### 1. Is there a winery interested in my site or my potential to grow grapes?

- Have I obtained a winery contract for the site?
- Am I willing to work closely with winemakers as I produce my wine grapes?
- If I intend to develop a winery for my grapes, have I researched winery and winemaking needs?
- Do I know what appellation or AVA (American Viticultural Area) my grape property is in?

#### 2. What is the site history?

- Has it been a vineyard before? If not, what was the previous land use and is it compatible with grape production?
- Are there available water and/or water rights? What is the water quality? Refer to Water Management checklist.
- List past irrigation history and systems used.
- List past crop and/or animal use and management practices.
- List past herbicide use and residual carryover potential for each material.
- Was past land use uniform or variable across the site?
- Has the site been leveled, eroded, or altered in any significant way?

#### 3. What is the surrounding property like?

- Identify the land use.
- Describe the general geography.
- What other crops are grown in the area? Is there potential for incompatibility issues from herbicides used in other crops, e.g. 2,4-D drift?
- Is there a vineyard nearby?
- Is the area susceptible to deer and elk predation? Will fences need to be erected to protect the vineyard?

#### 4. What are the potential site risks?

- Describe the demographic characteristics of the site (distance to urban activities, schools, dwellings, etc.).
- Identify potential environmental risks, such as, proximity to protected waters, endangered species, or need for buffer zones along waterways.
- Consider conducting an environmental survey (Natural Resources Conservation Service can help in conducting the survey).
- Describe the physiographic characteristics of the site slope versus valley position, slope direction (aspect), neighboring agricultural activities that could impact viticulture production (such as wheat farming).

#### 5. What is the mesoclimate of the site?

- A site that provides enough heat units to fully ripen the varieties planted is the first criteria in choosing a site.
- Because a limiting factor to growing grapes in eastern Washington is cold injury, great attention must be paid to the mesoclimate (**climate of the local area**) and microclimate (**climate of small area, such as part or all of a single vineyard block**) before planting.



- What is the average length of growing season (days above 32°F) for my site?
- What is the accumulation of heat throughout the growing season (called degree days) for my site?
- What were the temperatures for my site from previous cold winter events?
- Is there enough slope to provide good cold air drainage? Slope greater than five percent is preferred.
- What is the elevation of the site? Suggested elevation is between 600 and 1,200 feet.
- Is the site in a windy location? Windy areas tend to have less frost but wind can reduce vine vigor and growth.
- Is the site near a large body of water or large rock formation to help temper climate in the immediate vicinity?

## **6. Have I reviewed the Soil Site and Properties and Soil Management checklist?**

## **7. What varieties are suitable for my site and are they the varieties that are desired by wineries?**

- A list of varieties and their relative cold hardiness and heat unit requirements are contained in the book *Growing Grapes in Eastern Washington*.

## **8. What is the site's proximity to labor, good roads, supplies, and wineries?**

- Remote vineyard sites will incur increased labor and transportation costs.

## **9. Do local zoning codes limit farming or urban encroachment?**

## **CHECKLIST: BUILDING MY SITE SELECTION TOOLBOX**

- Have I determined the status of my water rights and water quality?
- Have I contacted any wineries to assess their interest in my site? Do I have a contract in hand before planting?
- Have I collected site history information?
- Have I assessed soil history of the site?
- Have I evaluated potential site risks?
- Have I compiled historical weather and temperature data for the site and charted growing degree-days, mean growing season, and extreme minimum temperatures?
- Do I know who to contact (industry and Cooperative Extension resources) to help me?

## **RESOURCES**

Watson, J. *Growing Grapes in Eastern Washington*. Proceedings from a Washington State University short course for establishing a vineyard and producing grapes. 1999. Good Fruit Grower, Yakima, Washington.

Jackson, D. and Schuster, D. 1984. *The Production of Grapes and Wine in Cool Climates*. Daphne Brasell Associates with Gypsum Press, Wellington, Aoteroa, New Zealand.

Gladstone, J. 1992. *Viticulture and Environment*. Winetitles, Adelaide, South Australia.

Dry, P. and Coombe, B. 2004. *Viticulture*. Volume I – Resources. Second Edition. Winetitles, Adelaide, South Australia.

O'Neal Coates, S. 2003. Crop profile for wine grapes in Washington. Washington State University publication MISC0371E. Available on the Internet at: <http://www.tricity.wsu.edu/cdaniels/profiles/WineGrapes.pdf>



Tarara, J. 2005. A Climatology Refresher for Vineyard Managers and Winemakers. The Grape Post, June/July Newsletter. Washington Association of Wine Grape Growers, Cashmere, Washington.

## GLOSSARY

*Aspect* (of slope) means the direction, such as north or south, that a slope faces with respect to the sun.

*Degree-days* are a system devised to measure the growth potential of vines in a specific area with regard to the temperature.

*Macroclimate* refers to the climate of a region.

*Mesoclimate* describes the climatic conditions of a specific smaller geographical area than macroclimate, be it an appellation or a hillside or a valley and is used to refer to a potential vineyard site.

*Microclimate* describes the physical environment, from the size of a single leaf up to the size of a vineyard block, and thus, is often confused with mesoclimate. It refers to distinct climatic conditions within a very specific area, sometimes no larger than a few feet across but often as much as a number of acres. With reasonable effort, the vineyard microclimate can be altered through farm management practices. The same cannot be said of mesoclimate. Microclimate helps convey the potentially profound effects on wine due to slight differences in soil, sun exposure, temperature, and elevation.

*Slope* refers to an elevated geographical formation.



*Washington Guide to Sustainable Viticulture*

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