



GROWING GRAPES in the INLAND NORTHWEST

Home fruit growers in the Inland Northwest can have a great deal of success with grape production if they know what is involved and are willing to do the work. It will take 2-3 years before your first harvestable crop and 5-6 years for grapes to reach full production maturity. Plants have been known to live for 50-100 years if properly cared for.

There are three types of grapes: North American, European wine, and French Hybrid.

- North American grapes, such as Concord (*Vitus lambrusca*), have skins that slip easily from the pulp, which makes them well suited to juicing and processing. This group is quite cold hardy. There are both seeded and seedless cultivars.
- European wine grapes (*Vitus vinifera*) are the wine grapes and are much less hardy than the North American grapes. There are some seedless types. Given a warm site, home gardeners may be successful with some of the wine grape cultivars.
- French hybrids are a cross between the American and European grapes. These hybrids are of intermediate hardiness, used primarily for wines and tend to have small berries.

Site Selection

In cool, short-season climates, extra measures will be needed to ensure grapevine survival. Selecting an appropriate planting location is a good start. Well-established plants cannot be transplanted, so it is important to choose your site well and prepare the soil thoroughly before planting.

- A good understanding of the soil's properties is essential; plan to have a [soil test](#) done.
- Grapes prefer well-drained, sandy or gravelly soils for heat retention.
 - Ideal soils are deep, well-drained and not overly fertile.
- Grapes need full sun and complete protection from wind.
- Recommended that rows are oriented north to south.
- To maximize soil heat, avoid areas prone to early spring frost.
- You might be able to extend the frost-free growing period by planting on a south-facing slope where airflow is good and the soil contains enough gravel or stone to retain the sun's heat.
- Grapes will benefit from being located on the south side of a masonry wall or other structure that traps and holds heat at night.
- Do not locate grapes in a lawn. Common lawn management practices will cause excessive vine growth and decrease winter hardiness.
- Weeds compete with young vines for nutrients and water--the fewer weeds you have in your new vineyard, the better your new vines will perform.

Visit our website at <https://extension.wsu.edu/spokane/master-gardener-program/home-lawn-and-garden/>
e-mail your garden questions to: mastergardener@spokanecounty.org

Cultivar Selection

Grapes are, at best, marginally adapted for growing in our area but there are now many excellent cold-hardy wine grape varieties available for northern climates. Some cultivars can thrive given ideal growing conditions.

- Grapes require a minimum of 150 frost-free days to develop and mature the fruit.
- The Spokane area averages about 120 to 150 frost-free days.
- Our weather (summer temperatures, timing of frosts, growing degree days, etc.) limits the number of cultivars which can be successfully grown in the Inland Northwest.

Perhaps the most critical decision is which grape varieties to utilize. An excellent resource for varietal information can be found at Oregon State University Extension publication, "[Growing Table Grapes](#)." Bernadine C. Strik.

It is often necessary to place orders for vines nine months to a year ahead of planting. Note: You must buy plants from certified nurseries*. *Nurseries in the Pacific Northwest that carry certified planting material for purchase can be found at: <https://cpcnw.wsu.edu/certified-nurseries/>.*

**WSDA Warning*

Regardless of whether you are a commercial grape producer or a backyard enthusiast, Washington State has strict quarantines regarding where your grapes come from. DO NOT bring back grape plants from your trips abroad (whether domestic or international). Doing so may result in very strict fines, but more importantly, may bring in diseases and pests that could severely hurt the commercial grape industry. All plant materials originating outside of WA (whether certified or not) need to be inspected by the WSDA upon arrival.

Planting

Plant grapes in early spring as soon as you can safely work the soil.

- If you purchase bareroot plants, do not let the roots dry out before planting time.
- If you buy grapes growing in a container, water them well until planting.

Before transplanting, soak roots in water for approximately two hours. Prepare planting holes 6-9 feet apart. The distance between plants depends upon soil and plant vigor, as well as training pattern. An 8-foot distance is common with North American-type grapes, but can be reduced to as low as 6 feet on sandy, less fertile soils. A 9-foot distance is recommended with European-type grapes on good soil.

At planting, prune off any broken roots and trim roots to 6 to 12 inches. Transplant vines at the same depth as they were in the nursery and into a large enough hole that the roots can be spread evenly, pointing down. Set the plant in the hole and spread roots out, firming soil and watering well.

Most nurseries/nursery tags suggest pruning vines to two or three buds after transplanting, to begin training the vine to a trellis system. However, research has shown that more root development occurs when vines are left unpruned the first year, unless moderate root damage occurred before or during transplanting.

Grow Tubes

Growers in the Inland Northwest find grow tubes or plastic shelters useful, especially with young plants that are struggling. Suppliers of grow tubes recommend a tube be placed over the young vine at planting. They also recommend the grow tube be pressed into the soil 2 inches and tied to a grape stake or wire for stability and microclimate maintenance. Growers remove the tubes if leaf burning is evident; otherwise, wait to remove them until early fall of the first year.

Mulches

Mulches are not necessary. In fact, mulches can retard warming of the soil in the spring and delay growth of the grapevines. Grapevine roots like to be warm.

Water

General

- Apply water only to the root zone. Keep foliage dry. Do not overhead water.
- Stop watering at the end of August or in early September to harden off grapevines for winter.

Year One

Keep soil moist the first year to insure good root development. First year root establishment and growth influence winter survival and should be the focus when caring for the vines. Once the vine is planted, surface irrigate every 2 weeks (6 to 8 hour sets). Drip irrigation of 15 gallons per vine per week is also recommended for year 1. These recommendations are for deep clay loam soils. More frequent irrigation may be necessary on sandy well-drained soils.

- Be sure to keep new vines weeded and remove all flower clusters in the first year. If left to grow, both weeds and flower clusters will divert water resources from the new plant.
- By the end of the growing season, your vine is likely not to need additional watering, unless soil is sandy, well drained or if prolonged drought dictates the need.

Year Two

Watering may be necessary in mid to late summer to alleviate summer drought. Water early in the day and avoid overhead watering to prevent fungal diseases.

By the end of the second growing season, a trunk should be established and your vine is likely to not need additional watering, unless soil is sandy and well drained, or if prolonged drought dictates the need.

Year Three and Beyond

Maintaining even soil moisture will prevent grapeskins from splitting. Grape splitting is more common when a heavy rain follows a period of drought.

- Older vines seldom need any watering unless in drought situation or on sandy or other very well drained soils. Supplemental irrigation of established vines can be helpful - even necessary - when soil conditions are dry.
- The practice of deep and infrequent watering can improve vine health and help prevent insect or disease infestation.
 - Grapevines are deep rooted, sometimes penetrating 8 feet into the ground.
 - The goal of deep watering is to achieve penetration of water to a depth of at least 3 feet.

Fertilizer

All planting sites have unique characteristics. Testing the soil before planting the vines will help you to obtain a baseline for optimal fertilizer recommendations. Grapevines have lower requirements for mineral nutrient levels than many other crops. Therefore, few soils require substantial fertilization to support grapes. Grapes usually require very little nitrogen fertilizer. Even less nitrogen fertilizer will be required for soils high in organic matter.

The current recommendation is to have the soil tested every three to five years. Getting a soil test is the best way to determine accurately the amount of fertilizer to apply to your grapes, letting you know which, if any, nutrients your vine requires.

Applying Fertilizer

If your soil test determines you need to add fertilizer to your planting site, follow label instructions. During the first season, the vine's feeder roots will extend in a circle no more than 3 feet in diameter. When applying, spread fertilizer over the entire root area.

As the grapevine grows, increase the radius of the fertilizer ring to 2 to 3 feet from the stem. Fertilizer should be applied in late April or early May before bud break. Avoid applying nitrogen fertilizer later in the year, to prevent overly lush growth in the fall that may be susceptible to winter damage.

Pruning, Training & Trellising

There are many ways to prune and train grapes. Vines can be staked as needed, and the desired trellis system can be erected during the summer or the fall. For most of the training systems, a trellis support is required. For consistent fruit production, thoughtful pruning is required. Basic guidelines are that you establish a main permanent trunk going up, with short laterals or spurs from which you select the new fruiting canes each year.

Fact Sheet C051 [Pruning and Training Grapes](#) provides detail regarding the most popular training methods recommended for our climate.

References

["Growing Table Grapes."](#) Bernadine C. Strik. Oregon State University Extension Service.

["Growing small-fruit crops in short-season gardens"](#) Stephen L. Love, Esmaeil Fallahi, and Kathy Noble. Idaho State University short-season, high-altitude gardening bulletin 868.

["Table Grape Varieties for Cool Climates"](#) Bruce I Reisch, David V. Peterson, and Mary-Howell Martens; website adaptation by Philip Stewart.

WSU Extension Bulletin EB 0637 ["Training and Trellising Grapes for Production in Washington"](#).