



Grapevines and Nurseries

If you are starting a commercial vineyard it is imperative that you start with the best possible vine material to insure the long-term sustainability and success of your vineyard. Your vines will most likely be one of your greatest initial capital expenses, and other than proper site selection, may be the most critical pre-harvest decisions you will make. Variety, clone and rootstock choice, along with quality of nursery stock, will have an impact for years to come. Healthy vines give any new vineyard a much greater chance of success.

The grapevine nursery industry in the U.S. is a very complex one. Because clean stock is so important to growers, the nursery industry has been under fire since the AxR1 rootstock failure and more recently, a series of plant pathogens such as black goo and crown gall. During the planting boom of the 1990s, many nurseries were overextended and vine quality dropped precipitously. Problems with Petri disease, crown gall, viruses and other woody plant maladies afflicted plant materials being circulated from nurseries to vineyards and back to nurseries. In the end, it was the growers who were most affected, often losing substantial numbers of young plants in the early stages of vineyard development, which is disheartening at the least, economically and viticulturally damaging at worst.

Many eastern growers have relied on California and Oregon nurseries for hard-to-find clonal and rootstock materials. This can work out fine, but there are reasons for caution when sourcing vines from the west. Eastern vineyards are not a big part of their business, so western nurseries may not send their best stock to fill smaller orders in the east. Consider that the Mondavis and KJs are order tens of thousands of vines, here it's often in the hundreds or low thousands. I encourage growers who have placed sizeable orders with a western nursery to take the time and expense to visit their vines sometime during the production phase. Let the nursery know that you care about the quality of materials that you are receiving. They will be impressed that you took the time to visit their operation and your vines. At the very least, call them frequently and inquire about the status of your vines.

New York nurseries have a good reputation, but much of the same caution should be exercised. Again, the more you care about your vines, the more likely you are to get good vines. Ask around to find out who is producing reliable, sound plants. But remember, nurseries are notoriously inconsistent, often both in quality and quantity of production. In a way, this reflects the difficulty of raising high quality vine materials, even at experienced nurseries. It might be wise to spread your order among several nurseries. Once you gain experience with one or two, you can continue to work with them as you expand your vineyard. Again, talk to the nurserymen about quality issues, as well as choices in varieties, clones and rootstocks. They have a lot of information but always remember that they are also trying to sell vines to you.

Order on time. Remember, vines are grafted a year in advance of the actual delivery. So orders for vines to be planted in 2005 are being taken now. The nursery will obtain their scion wood this winter, graft in the spring, nursery the vines for a summer and dig them the following spring. Last minute orders tend to be filled with lesser quality vines. This is an important part of the planning process in developing a vineyard. It gives you time to properly assess and prepare your site.

Determine the best possible choice of rootstock and clone. Put a lot of time and effort into studying these issues, they are of great long-term consequence. Clones are becoming increasingly important for fine wine production. Do not accept the word of the nursery as to the best choice for either of these. Ask other growers and wine makers. Clones can make a difference viticulturally and may make the difference between producing a mediocre or a great wine on your site. Rootstock can have the same effect. Do NOT compromise your rootstock choice to availability at the nursery. Insist that you get the correct stock. Remember, you have one shot at getting the right variety, clone and rootstock in the ground. Better to wait another year, or find another nursery, than settle for second best or something that is not appropriate for your site.

If possible, source certified vine materials. There are no nurseries in the east that sell certified vine materials. And even the western stock may be of dubious quality. But if you get certified stock, you have at least some assurance that it will be virus free. Unfortunately, this does not mean it is free of crown gall. I would ask the nurseryman directly about his attitude and experience with crown gall in his stock. This conversation may come in handy if your vines develop problems. There are efforts to develop crown gall free plants at Michigan State and Washington State. Hopefully, crown gall free plant materials will soon be available.

Your choices of variety, rootstock and clone will be guided by your site assessment. A careful analysis is needed to make insure the right combinations for long term success. Talking with fellow growers and wine makers and using experienced consultants is a good way to gather information. Soil characteristics, in particular vigor potential, are essential to choosing rootstock. Climate parameters, especially length of growing season, rainfall, and low winter temperatures are critical to ripening and vine survival. The accuracy of your predictions will correlate directly to any success you experience.

Vine density will also be a very important decision that will impact your decisions on rootstock and trellis system. It can dramatically affect the initial cost of developing your vineyard as well as the yields and quality of the fruit once the vines are in production.

When ordering, insist on number one rated vines only. These will give you the best possible vine to plant. Often, nurseries will offer number twos to fill out an order. I recommend against their use.

Suitcase, or illegally imported vines are simply out of the question. Please do not do this. They compromise the integrity of a well established quarantine system for the legal importation of vine materials and often will not lead to any better quality wine than when you can get from a domestic nursery.

Timing of delivery is very important. Nurseries are often anxious to get vines out the door in the spring. It's up to you to set the time of delivery, based upon the timing and quality of your field preparation, the condition of the soil for planting, and your ability to properly store vines if there is a lull between delivery and planting. Hold the nursery off until you are ready to receive and plant the vines. But do not wait too long. You do not want vines that have already broken bud. They should be fully dormant when planted. I recommend against planting green grafts, if at all possible. If you need to store vines, arrange for a cool, dark and damp place. Place bundles in moist sawdust in a grape bin and store in a refrigerated room. Inspect them regularly for mold. If they are going in for long term storage, dip them in fungicide for protection against molds and mildew.

Inspect the vines, preferably before delivery, at the least once they arrive. Out of each bundle, perform a standard set of quality tests that include a graft union exam and flex test, root and stock caliper test, bud quality exam. Dr. James Stamp has outlined a set of examination criteria, which

you can find in Wine Business Monthly. Cull out bad vines and discuss the numbers and replacement issue with the nursery. Do not plant poor quality vines. Once they are in the ground, it becomes extremely difficult to negotiate with the nursery.

Plant the vines properly. Get specific instructions from the nursery, but also rely on experienced sources for planting methods. Even the healthiest vines cannot tolerate slipshod planting techniques. A deep hole, well packed soil around the roots, maximum root length with roots going downward, proper distance of graft union above the soil surface, adequate fertilizer and water, weed control will all contribute to a thriving new vine.

Vineyard uniformity is one of the most important contributors to the production of high quality wines. If a grower must constantly be replacing dying vines, uniformity is compromised and vines of all ages will inhabit the vineyard. The economic cost of replanting is enormous. Factor in the number of lost production years, the cost of planting and maintaining the bad vine and the additional cost of replanting and training the replacement plant. It could easily cost 10 times the initial expense to replace a vine and there is no measure for lost uniformity.

Vine age is also a key component to wine quality. If unhealthy vines are planted, it is likely that the vineyard will not develop to a ripe, old age. The French will often say that wine quality does not begin until a vine reaches 10+ years of age. A productive vine should last 40-50 years before being pulled out.

Care, caution and good pre-plant decisions will be rewarded by a healthy and long-lived vineyard. It's really worth the time and effort to do everything right from the start. Most people are in a big hurry to get their vineyard started once they have made the decision to have a vineyard. Resist the urge to move too fast. Focus on quality. It's the only way to succeed.

Below is a list of commercial grapevine nurseries. In no way is this list an endorsement of any of these nurseries. Many nurseries come to Wineries Unlimited, a large trade show and meeting in Lancaster, Pennsylvania held in March. You can find information at www.vwm-online.com/. Most of the nurseries have web sites which are easily found using Google.

Books

1. Vines, Grapes and Wines. Jancis Robinson. 1986. Knopf. ISBN: 0-394-5598-8
2. A Practical Ampelography. Pierre Galet. Translated by Lucie Morton. Cornell University Press. 1979. ISBN: 0-0814-1240-0
3. Wine Grape Varieties in California. Christensen, Dokoozilian, Walker and Wolpert. ANR Press. Publication 3419. ISBN: 1879906635
4. Rootstocks for Winegrapes. D.P. Pongracz. David Phillip Publ. 1983. ISBN: 0-908396-67-8
5. A Concise Guide to Wine Grape Clones for Professionals. Second Edition. John Caldwell Professional Services. 707.255.1294.

Web Site with Grape Variety and Rootstock Information:

1. <http://www.lincoln.ac.nz/v&o/grapglos.htm>
2. <http://www.nysaes.cornell.edu/hort/faculty/reisch/bulletin/wine/index2.html>
3. <http://www.vaes.vt.edu/winchester/grape/pubs.html> (you will need acrobat reader to open this file)

4. http://www.sardi.sa.gov.au/pages/horticulture/viti/rootstock_evaluation.htm

Grapevine Nurseries

New York

1. Double A Vineyard, Inc. - Dennis Rak. 10277 Christy Road, Fredonia, NY. 14063. 71.337.2485. www.doubleavineyards.com.
2. Grafted Grapevine Nursery - Herman Amberg. 2399 Wheat Road, Clifton Springs, NY 14432. 315.462.3228. <http://www.graftedgrapevines.com/>
3. Herman J. Weimer Vineyard, Inc. Rt 14, P.O. Box 38. Dundee, NY 14837. 607.243.7971. <http://www.wierner.com/#nursery>
4. Concord Nurseries (Foster) 10175 Mile Block Road, North Collins, NY 14111 716.337.2485. <http://www.wierner.com/#nursery>

California Nurseries

1. Sunridge Nursery, 441 Vineland Road. Bakersfield, CA 93307. 661.363.8463. <http://www.sunridgenurseries.com/>
2. Vintage Nurseries, 27920 McCombs Ave, P.O. Box 279, Wasco. CA 93280. 661.758.4777. <http://www.vintagenurseries.com/>
3. Duarte Nurseries, 1555 Baldwin Road, Hughson, CA 95326. 209.531.0351. <http://www.duartenursery.com/>
4. Caldwell Nursery – John Caldwell. 169 Kreuzer Lane, Napa, CA 94558. 707.258.2566.
5. Nova Vine, 6375 Sonoma Hwy, Santa Rosa, CA 95409. 707.539.5678. <http://www.novavine.com/>
6. Tablas Creek Vineyard, 9339 Adelaida Road, Paso Robles, CA 93446. 805.237.1231 <http://www.tablascreek.com/nursery.html>
7. Foundation Plant Service – Susan Nelson-Kluk. University of California at Davis. Davis, CA 95616. 916.752.3590. <http://fpms.ucdavis.edu/Grape/GrapeProgramIndex.htm>

Other Nurseries

1. Lorane Grapevine – Tom Lodge. 80854 Territorial Hwy, Eugene, OR 97405. 541.942.9874.
2. Mori Vines, RR#2, Niagara-on-the-Lake, Ontario, L0S 1J0, Canada. 905.468.0822.

Nursery Listings

1. <http://www.cce.cornell.edu/programs/finger-lakes-grape/references.htm>

This information is provided by:

Mark L. Chien, Wine Grape Agent
Penn State Cooperative Extension
November, 2003