The Grape Growing Starter Pack

"An easy to understand, practical guide to help you understand the basics of grape growing"

By Danie Wium

This Grape Growing Starter Pack is dedicated to all the loyal subscribers of my website

My Grape Vine

Thanks for your positive feedback, support and motivation the past 5 years.

Hi dear grape growing friend,

Before I start showing you the basics of growing grapes, allow me the opportunity to tell you more about where this all come from.

The past five years, that I've been "online", consulting grape growers from all over the world, has been a great experience. I've met more than 15000 new subscribers; each with their own questions, comments and ideas.

As you can imagine; since I've uploaded the first page of My Grapevine on the internet, it has grown exponentially and since then became one of the biggest, most active and most content rich grape growing websites online!

My passion for growing grapes successfully and for being able to help people to do same, inspired me to search for a way to reach out to the rest of the word. Reach out with a helping hand for those in need of practical, easy to understand and proven grape growing tips.

Although growing a grapevine isn't that hard, there are however a couple of key elements and tricks you need master, before you will be able to grow a great looking, productive grapevine.

These key elements are crucial for managing, keeping in shape and off course the survival of any grapevine – without it; you will most probably fail!

So sit back and enjoy what I'm going to show you and hopefully you will learn what to do to make your grapevine stand out above the rest.

Danie

The Grape Guy

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Right, with that said, let's get started...

History of grape growing

Drinking wine is a pleasure that has been enjoyed since almost 4000BC. The science of viticulture, or grape cultivation, began with the need to domesticate wild vines. Viticulturists needed to breed domestic plants with higher fruit yields, since wild grapes invest little energy in fruit production. Wild grapes were also dioecious, meaning that there are male and female versions of the plant. Early viticulturists selected a rare mutant vine with perfect flowers (that is, functional male and female components) to ensure all their vines bore fruit. Today many varieties of common species of grapes are cultivated and used for wine and table grape production.

Speaking the grapevine language:

I often receive question from new grape growers to explain the terminology I use in my articles and on my website. After reading this, I hope you will be able to picture or identify all the different parts of the grape vine.

Cuttings or grafted cuttings:

A grape vine cutting, is a small piece of wood (4 to 12 buds in length), that was pruned from an existing grape vine, in order to propagate a new grape vine.

Cuttings can also be grafted onto what we call rootstock grape varieties. These varieties a purely bred for this purpose. Some grape varieties are more susceptible to diseases and these rootstock varieties are selected from material that proved to be more resistant to disease found in the soil. Grape growers use certain rootstock when they pH imbalanced soil, too wet soil and even for stronger growth, when the grafted variety has known growing problems.

Taking cuttings from an existing grape vine should be done after winter, just before the first signs of bud swell close to spring.

Cuttings are taken from the shoots that hardened off and lost all of its leafs, during winter (which we now call canes).

This picture shows grafted cuttings. The graft union, where the rootstock and grafted variety is joined, is clearly visible.

Shoots and Canes:
A shoot is the green, one-year-old, growth from buds on a grape vine. A shoot normally develops from spurs and canes (later described) that was pruned during the winter.

A shoot that is starting to develop on a spur.

Sometimes, shoots also develop from two-year and older wood; these shoots are called water shoots and normally do not produce grapes.

After harvesting the crop, the grape vine will go dormant as winter comes along and the temperatures start to drop below the point where vegetative growth stops and the grape vine starts to prepare for the cold winter. The leaves will fall off, and the green shoot, will gradually become a more woody, brown shoot. At this stage, we call these shoots canes.

Spurs:
A grape vine spur, or also known as a short bearer, is a cane that is pruned during the dormant season. These spurs are the fruit bearers for coming season, and also to renew the grape vine. A spur is pruned to 2 buds in length.

Buds (1 on the picture):
Are undeveloped shoots, located a shoot or cane. This is the production area, where new shoots develop and every single bud of a grape vine, is actually three buds combined (composite bud).

Basilar buds (2 on the picture):
A basilar bud, is a bud at the bottom of a spur or cane bearer. These buds are on old pruning wounds or the frame work of the grape vine and are not counted, when deciding on many buds to leave on a spur or cane.

Cane bearers:
As with a spur or short bearer, some less fruitful varieties are pruned with cane bearers. A cane bearer (or cane), is pruned back 8 to 12 buds long and tied to the trellis wires.

Canopy:

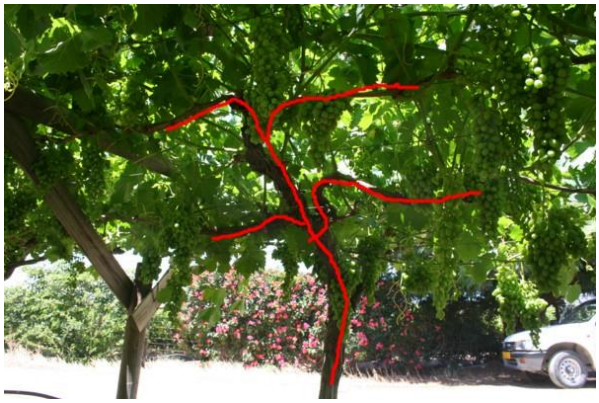
The canopy of a grape vine is simple word for the area where the leaves and the fruit are. The canopy is developed on some kind of trellis system, constructed by the grape grower. Managing the canopy growth is critical and of the utmost importance for ANY grape grower – backyard grape grower and commercial grape grower. The canopy is where new canes and spurs are pruned in dormant season.

Lateral shoots (laterals):

A lateral shoot is a "side shoot" that develop from a bud on a green shoot, one-year-old shoot. When training a grape vine, these shoots use nutrients needed for young grape vine to reach the trellis wires, and should be removed according to the training methods I teach.
On the other hand, once the training shoot reach the trellis wires, these laterals are used to construct the cordon or arms of the grape vine (see next explanation). Once these lateral shoots become during the winter, they are pruned and tied on the trellis wire where the cordons will be developed.
This will form the basic structure from where all pruning will be done in the future. You need to ensure you develop the cordon (arms) the correct way and in the right position to ensure easy pruning and canopy management in the future – REMEMBER, this is extremely important!

Cordon, structure or the frame work of the grape vine:

The arms, or cordons of a grape vine is a two-year and older permanent framework of a grape vine. Spurs and cane bearers are pruned on this framework. The framework is developed needs to be kept under control, to ensure a proper harvest, and is sometimes pruned back to the main stem of the grape vine. This is what we call renewal pruning (from a renewal spur, close the stem of the vine).



Choosing the right variety:

Choosing the correct grape variety is one of the most important decisions any home grape grower needs to take, when it comes to growing grapes. The correct variety will stand between being a successful grape grower or failure.

In the early days, choosing a grape vine variety that suits your climate, soil and growing conditions, was much harder than today. Nowadays, with more than 20 000 known grape varieties in the world, people living in climates, previously deemed unsuitable for growing grapes, can now plant varieties that was specially bred for to survive in harsh grape growing conditions.

Backyard grape growing is becoming more and more popular by the day, as people more and more strive to live healthier and look after our planet more carefully. Unfortunately, you cannot just plant any grape vine in your backyard. You will have to do some research on what varieties suits your climate, your soil and the availability of good quality water.

Another major concern for any home grape grower is a disease called Phylloxera. In the late 1800's, a Phylloxera epidemic (a sap-sucking insect that feeds on the roots of the grape vine) destroyed more than two thirds of all the vineyards in Europe. The breeding of Phylloxera resistant/tolerant rootstock prevented this disease from killing all grape vines. Planting grafted varieties is the preferred method today, because the rootstock does not interfere with the development of the grapes.

When choosing the correct grape variety, it is best to visit vineyards in your area and see what varieties are successfully grown there. Most of the time, this is a surefire way of knowing that you succeed with that variety.

Cold damage to grape vines is another grape growing obstacle that will influence the choice of grape varieties. If cold damage is a problem where you live, choose a variety with a short growing season, so the grape vines have enough time to harden off before winter comes.

A final word of advice; if nobody grow grapes in your area, it doesn't mean grapes can't be grown there. Do some research and choose wisely. There is nothing more satisfying than enjoying grapes, grown on your own grapevine and prepared by your hands.

Soil preparation and planting grapes

It is important to carefully select the planting site. Grapes can grow in a wide variety of soil types and pH ranges, certain conditions induce better growth and yields. First, grapes prefer well-drained and slightly acidic soil. The best pH is typically between 6.0 to 6.5, but grapes will grow in soils with a pH ranging from 5.5 to 7.5. If your soil is a little basic, you can add in sulfur or ammonium sulphate to decrease the soil ph.

Ideally, grapes should be planted on a south-facing hillside, although in a home garden you may not have this luxury. You should choose a site in your garden that receives full sunlight – grapes do not like the shade. You'll need to ensure that the soil at your selected site is worked over well before planting to remove any perennial weeds. Addition of peat moss or manure to the site will also help to improve soil quality.

You have prepared your site; you have decided what variety to grow; now it is time to plant your grapevine! Well, unfortunately, this is where many home grape growers terribly fail!

Planting a grapevine is not hard, if fact, it is one of the easiest fruits to get started, but there are a few key things to remember when planting your grapevine.

1. The planting hole

In the early days, before research proofed this method wrong, planting grapevines, by adding fertilizer and all kinds of stuff into the planting hole, was a well-known practice? Research showed, that a grapevine sprouts from energy within the vine itself, and do not actually use any fertilizer until the vine reach about 2 to 3 inch shoot length. By adding fertilizer directly into the planting hole, or directly on the roots of the vines could damage (scourge) the roots.

With knowledge/information you gained from soil samples, you should fertilize and correct all mineral shortages BEFORE you prepare your vineyard site and then plant your grapevine. This will mix all the fertilizer with the soil and will not damage the roots of your grapevine.

Make a large enough hole to accommodate all the roots from the cutting and do not cut or remove any roots – the more roots, the better the chance of successfully planting your grapevine.

2. Preparing the new vine before planting

Before planting your grapevine, you should plunge the complete vine into a bucket of water for at least six hours. Under no circumstances, let the roots of the vine dry out - this is very important! If you are planting a few hundred vines, cover the vines not planted yet with a damp gunny bag or something similar.

3. Watering the newly planted grapevine

Before you plant the grapevine, you should thoroughly water the planting hole and ensure that the water deeply penetrates the sidewall of the planting hole.

Constantly add water to the planting hole while filling the hole with soil, to ensure that no air pockets forms near the roots of the vines. Water your grapevine once a week for at least a month after planting the grapevine.

Following these simple rules when planting a grapevine, will guarantee a much higher success rate.

Planting methods

The way you plant your grapevines is really important for their health and productivity. Vines need to be planted approximately eight feet apart in rows that are between eight and ten feet apart. If you are planting on a sloped site, ensure that the rows run perpendicular to the slope. If your site is exposed to a strong prevailing wind, orientate your rows in the direction of the wind to minimize damage. It's preferable to choose one- or two-year-old, dormant, bare-root vines from a reputable provider.

Soak the roots of the vines for several hours prior to planting. When planting, ensure that the hole is slightly larger than the root system of the plant and that the vines are set at a depth equivalent to the one they grew in at the nursery. If your vines are grafted, ensure that the grafting union is approximately two inches above the soil. Once you have planted the vines, you'll need to remove all but the most vigorously growing cane and cut this back to just one or two buds.

What about relocating a grape vine?

Transplanting a grape vine post some risk, there is no doubt about that, but it can be done if you follow the instructions I am going to give to you now. Do not deviate from this too much as you could lose your grape vine.

The first problem with transplanting an old grape vine (2 years and older), is that the root system and structure of the vine gets bigger each year and makes the removal of the vine much harder. When transplanting these grape vines, you will eventually damage some roots, as it is impossible to take them out of the soil intact. Damaging the roots of the vines will result in the loss of moisture through the wounds and could result in the roots drying out too much and die. When taking the vines out of the soil, make sure you dig up as many of the roots as possible – the more roots you can save, the more successfully you will replant your grape vines.

The second problem with replanting a grape vine, is the loss of water through the leaves (evaporation). After replanting the grape vine, the roots of the vines are in a state of shock and for a week or two will not be able to take up water from the soil. If the climate is hot, the grape vine will lose water through the leaves which will result in too little water in the vine and the leaves will start to wither.

You therefore need to minimize the apical growth in order to ensure there is enough available water in the vine itself by reducing the number of shoots to a maximum of three. I would recommend you prune back hard and leave only one strong cane from the base of the lowest cordon. You can develop the new structure of the vine from there. Rather lose one or two year's growth and have healthy vine, than trying to retain the old structure and have a dead vine!.

The third problem is planting and watering the vine. Because you have a much bigger root system than a normal rooted cutting, you will have to make a much bigger planting hole. Make the planting hole large enough to accommodate ALL the roots and do not prune back any roots to fit the planting hole – rather make the hole larger.

It is important that you understand, that these vines needs allot of water the first few weeks (as explained before). After removing the vine from its old position, place the roots of the vines in a bucket of water for at least six hours, prior to planting it in the new location. This will ensure the roots stay moist and the vine will not lose any water through the wounds on the roots.

Do not put any fertilizer in the planting hole it will damage the roots.

Training your grapevines

To facilitate cultivation, harvesting, pest control and to maximize yield, grapes are trained to a specific system. There are many different training systems; however the single curtain and four- or six-cane Kniffin systems are most suitable for home gardeners.

The four-cane Kniffin system trains four fruiting canes to two trellis wires whilst the six-cane Kniffin system trains six canes to three wires. The six-cane system is best for less vigorous grape varieties. Using the single curtain system, the main trunk of the vine is attached to a horizontal wire approximately six feet above the ground. Two cordons (extensions of the main trunk) grow along the wire to the left and the right of the trunk, with five or six fruiting canes on each cordon.

I train most of my grapevines on a trellis called the gable trellis (Y-trellis). This by far the best trellis/training system I've tried and produce huge crops of good quality grapes.

The key to having a productive grape vine starts with training a grape vine from year one. Many new grape growers just plant the grape vine and then expect it to climb to the trellis or arbor by itself. Although sometimes this happens, it is not the ideal way to train a grape vine.

You need to make sure that you train only one training shoot the trellis or arbor - if you prefer to have two main stems one day, then train only two shoots to the trellis. Your vines will reach the trellis or arbor in half the time – I promise. The methods I use and explain in the Complete Grape Growing System get my grape vines to the top of ANY trellis within one year.

The second year I develop the framework and then BOOM!!! Tons of grapes! The key is – "Train your grape vine with one goal in mind – to reach the trellis wire in year one!"

Achieve this during year one and you are well on your way

to becoming a great grape grower!

(yes, it is possible!)

Summer treatments

Summer treatments include things like the tying down of shoots, leave pulling, suckering, bunch sizing. These are some of the most important treatments to ensure good quality, sweet and healthy grapes. Without proper summer treatments, you will for sure struggle to keep your grLeaf Pulling A Grape Vine

Leaf pulling or the removal of leaves is one of the summer manipulations you simply cannot just ignore, if you are serious about growing good quality grapes.

Why leaf pulling?

Not only will leaf pulling improve the coverage and penetration of your spray applications, but it will also improve sunlight penetration and airflow into the vine, which on the other hand makes your grape vines less susceptible to diseases. As the UV-rays and air penetrates the vines, it will create less ideal conditions for the inoculation and spread of fungal diseases. Remember for fungus diseases to spread, a hot humid climate is needed.

The removal of leaves will allow the vines to dry off much quicker after rain or heavy dew and thus will make the vines less susceptible to the spread of fungus diseases.

Many grape growers ask me why their vines don't have any grapes and the first question I ask them is how they do summer manipulations. In 90% of the cases, they don't do leaf pulling. I will almost go as far as to say that, leaf pulling is just as important as proper pruning techniques! I know, this is a bold statement, but without proper sunlight penetration, the chances are good that your vines will only have shoots and leaves and no grapes!

When to do leaf pulling?

Leaf pulling is done just after flowering, when fruit set is complete so you won't disturb the pollination process. In the southern hemisphere, it is round about middle to end November and in the northern hemisphere in May (off course this may vary from climate to climate).

If you grow table grapes or dessert grapes, then leaf pulling will improve the overall cosmetic quality of the grapes, as it will minimize the bruising of the grape skins from leaves scratching it's surface. For wine and table grapes, it will improve the overall grape and wine quality, as the vines are using the nutrients available more efficiently.

Tests done with a light sensitivity meter shows that the first layer of leaves on the grape vine canopy, get the most sunlight and will use the sunlight to produce more than 90% of the carbohydrates inside a vine. They are the most efficient leaves on the canopy, which is obvious as it gets the most exposure.

The second layer of leaves inside the canopy, only gets about 7 – 10 % of the sunlight and will contribute only that percentage to overall carbohydrates. The third layer only receive about 3% of the sunlight.

How to do leaf pulling?

Now, the following is important; your grape vine needs leaves to produce carbohydrates, but on the other hand use up nutrients for normal assimilation processes. Therefore, some leaves are using energy they produce to create more energy but some are only using energy and do not produce enough energy themselves. These are the leaves that will make less energy available for grape development and they need to be minimized at all cost.

The leaves at the base of each shoot (leaves 1 to 3, counting from the spur or cane) are the ones that are not contributing to improve grape quality. By only removing those leaves, you will improve the sunlight penetration into the base of the canopy and will also improve the airflow by up to 40%! Leaves touching the structure or cordon of the vine and those touching grapes clusters needs be removed.

Don't forget leave pulling, I know it's a time consuming job, but you will reap the rewards in the end.

For the same reasons I mentioned above, we do suckering, thinning out of bunches and tying down shoots.

Pruning your grapevines

Annual pruning of your vines will be necessary to ensure optimum yield and sufficient vine growth to produce next year's crop. The best time for pruning is late winter or early spring, during the vine's dormant phase. You'll need to keep a few things in mind when pruning; fruit is borne on one-year old canes, the most productive of which are between 0.25 and 0.30 inches in diameter. The most productive buds occur in the middle of the cane, so it is best to prune canes to between eight and 16 buds. New farmers may find the advice of an experienced viticulturist helpful.

Pruning grapes date as far back as 1876, when French viticulturists trimmed their grape vines to keep them in shape, as they grew older. They learned that without pruning, their grape vines grow out of hand and produce smaller crops, with lower grape quality as years go by.

They developed a pruning method, where only a few old canes are removed during winter to keep the basic structure of the vine under control. The method or style of pruning a grape vine changed quite a bit since then, but the basics of keeping the structure of the vine as small as possible, remains until today. However, the most important thing they discovered, is that a grape vine will produce the best crops if it is pruned, EVERY YEAR.

Why? Without pruning a grape vine, the structure of the vine will get bigger and bigger every year, pushing the most active growth to the very end of the vine. Have you seen a grape vine climbing up trees?

An "out of control" grape vine produce lots and lots of flower cluster, but seldom produce good quality grapes to wine or table grapes and in the end, no grapes at all.

What most new grape growers don't know, is that a grape vine produce grapes from buds that was laid down the previous year – in other words, the buds on a green shoots during this year's growing season, will be the fruit bearers for the next season!

Although there are many reasons for pruning, the 4 most important one's are the following:

1. To develop the young grape vines:

I cannot stress this enough! The key to having a productive grape vine one day, starts with the training and pruning of the young vine. If you grow grapes commercially like I do, you need to get that young grape vine in production as quick as possible and the only way this can be achieved, is knowing how to prune and train that young vine.

This is really the starting point of having a successful, productive vineyard – no matter if you grow one grape vine or a thousand, it is essential that you prune and train the young vine the correct way.

2. To maintain a proper balance between growth and fruit bearing:

Incorrect pruning or even no pruning at all, will result in thousands of buts to open in spring. At first, this will look quite lovely, but eventually, these new shoots will be under-developed and will for sure produce less quantity and quality grapes.

What not many grape growers know, is that when a bud open in spring and reveals a new shoot, this shoot grows from food stored in the vine the vine during winter and not from nutrients in the soil. Only when the shoots are about 2 to 5 inches, the roots of the grape vine become 100% active. Obviously, the more shoots there are, the less food there is for each shoot to develop during the early stages of shoot development – which by the way is the most important stage.

So you haven't pruned the vine, and it still produced good shoot length, despite the fact there are thousands of new shoots on the vine. The next critical stage in the development of a grape vine is flowering and fruit set. During flowering, the grape vine is under a tremendous amount of stress, as the grape vine needs more and more nutrients to maintain the proper physiological activities within the vine. Once again, it is quite obvious that the more flowers there are, the fewer nutrients per flower there is – the result; the grape vine will naturally aborts the flowers to save itself and in the end produce strangely grape clusters with low quality grapes.

3. To maintain a proper crop size:

Over-cropping is probably the biggest mistake new grape growers make, as they try to grow as many grapes per grape vine possible. Over-cropping will not only delay the ripening process by a week or two, but will also influence grape quality.

The more grapes there are on a single grape vine, the more nutrients and basic elements like potassium is needed to maintain a proper balance between fruit development, fruit ripening and keeping the physiological processes intact - this is also the reason why having too many grapes per grape vine, will result in poor coloring of the grapes. In the end, to produce insane crop sizes, you need to find the point where your grape vine produce optimum number of grape clusters, without negatively influencing the quality of the grapes.

4. To maintain a proper grape vine structure:

The last, but for sure not the least reason why we prune our grape vines, is to develop and maintain the structure of the grape vine.

Most grape vines nowadays are grown on some sort of supporting object. Whether it is a pergola, wired fence or trellis system, the maintenance of the structure of the grape vine in this supporting object is very, very important.

Keeping any grape vine in shape is impossible without proper pruning during the dormant season. There is also something known as "summer pruning", which I will explain how to do in a later article.

Keeping the cordon (arms) of the grape vine in shape, will not only allow sunlight to penetrate the vine, which on the other hand is needed for disease control and fruit ripening, but will also make future pruning, a breeze.

Harvesting your grapes

Harvesting should occur when the grapes are fully ripe. Color isn't always a reliable indicator of maturity, so taste-testing is essential! Cut the grape clusters from the vine with a sharp knife and handle the grapes by their stems. Grapes do not handle or store well, so enjoy the fruits of your labor as soon as possible!

What to do, to make your grape vines stand out above the rest?

I'm sure if you are new to growing grapes, that you have learned quite a few things about growing a grape vine in this starter pack. If I can summarize the importance of what you have learned here, I'll have to say that …

mmmm, okay the first thing that comes to mind is, and that is probably the most important is:

1. Choosing the right grape variety: I would say 40% of your success depends on what variety you choose. This is particularly important if you live and a cold climate where winter temperatures drop below freezing or if you live in a tropical climate, where rain often occur during the growing season. Remember, some varieties are more susceptible to cold damage and diseases, than others.

2. The second thing that comes to mind is; pruning. Without pruning your grape vine, you will never be a successful grape grower – period. Now, pruning a grape vine is a complex and often hard to understand subject for new grape growers, but once you've done it like it is supposed to be done, you WILL see a huge difference in the way your grape vine grows and you WILL have more fruit for sure!

3. Training and developing the structure (framework) of your grape vine. Forming a correct framework of your grape vine will improve the overall performance of your grape vine tremendously. A properly developed grape vine, will ensure good sunlight and air penetration into the vine. This is particularly important for disease control and fruitfulness. DO NOT UNDERESTIMATE THE IMPORTANCE OF PROPERLY TRAINING YOUR GRAPE VINE!

4. Keeping diseases under control. Now, this is easier said than done, especially if you try to grow your grape vines organically and you live in a hot, humid climate. Although there are excellent fungus and pest control products on the market, the timing of your spray application, as well as managing the canopy of the vineyard is more important. Remember that prevention is better than cure!

5. The last but not the least is; summer treatments or growing season treatments for your grape vine. Growing grapes of good quality, all comes down to managing the grape vine canopy. After choosing the right variety, I would say that this is the second most important aspect of growing grapes. Things like removing water shoots, leaf pulling, suckering, tying down shoots, crop size management and cluster thinning are all part of this process. Without managing the canopy, your grape vine will not stand out above the rest!

Okay, so now you have a basic knowledge of what it takes to become a successful grape grower. I say again, this document is only to get you started but if you are serious about growing your own grapes, then you need to take one step forward. This one step will be the difference between success and failure!

The step you need to take is to become a member of the Complete Grape Growing System.

The Complete Grape Growing System is an online product. You will not receive any physical products with your order. All the grape growing information will be instantly available upon completion of your order.