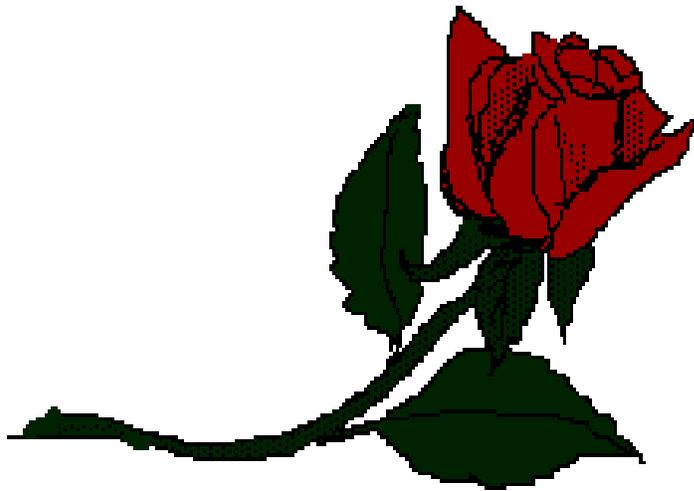


Rose Growing & Care Information Booklet

Prepared for Your Rose Growing Assistance



Prepared *By: Stan V. Griep*
Native Colorado Consulting Rosarian
Retired American Rose Society Consulting Rosarian
Loveland, Colorado

Selecting Rosebushes

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

There are many varieties of roses available for purchase today. There are also many places to purchase rosebushes. On-line purchasing of bare root or potted rosebushes has become quite popular. On-line purchasing of roses is especially popular when looking for a certain rose that is not available locally. No matter where you purchase your rosebushes, it is extremely important to obtain good high quality rosebushes. Nothing is worse for a beginning rose grower than to purchase a rosebush that is not healthy or has some other problems to start with. I have been contacted by beginning rose lovers that are extremely frustrated over the lack of performance of their new rosebush. I go over everything they did from purchasing to planting of the rosebush first. Then I inspect the actual rosebush to see if I can spot any obvious problems. Many times I have dug down along side a problem rosebush to find that its root system is nearly non-existent. The new rose lover had purchased a bare root rosebush at a local store that even though it was still in its plastic wrapping had started to leaf out. The new rose lover reasoned that the rosebush must be very healthy if it was leafing out so nicely while still in the wrapping. Once the rosebush was unwrapped our new rose lover noticed that there were not many roots there at all, yet went ahead and got it planted and watered well. A warm afternoon followed soon after planting and all the foliage went limp and died. What once had been a happy and excited beginning rose lover, was now a frustrated and upset rose lover. In many cases that new rose lover feels that he or she did something wrong and thus roses are given the label of hard to grow or very finicky. Most of the time what actually happened was that the rosebush had its root system badly chopped off or cut back at some point either during its harvest for sale or perhaps at packaging time. The limited root system was packed in nice wet sawdust and was capable of getting all the moisture it needed to support the growth it started to put forth while in the wrapping. One the new rose lover took away that wet sawdust packing and planted it in the garden, even though well watered, the new planting medium did not have the same moisture providing availability. Through on top of that the warm to hot afternoon sun and a root system that is not developed or established enough to support any foliage and what you get is limp to crispy foliage very quickly. Most of the time the rosebush will die as the root system is just not sufficient to support it. Thus the passion of growing and enjoying roses gets a much undeserved black eye of sorts.

When buying bare root rosebushes **always** take a good look at their root systems and inspect them for any damage or possible signs of disease. If some areas of the roots look slimy feel free to prune them back to good tissue. If the root system does not look right to you take it back to the store where purchased and ask for another rosebush. If the rosebush was purchased on-line call the company and explain the situation to them. The company will then advise you on how they want you to handle the situation. The company it was purchased from will replace the rosebush in many cases. Some companies will want the rosebush shipped back to them and then will send out a replacement.

The canes of the rosebush must be inspected as well for any damage or signs of disease. If significant signs of damage or disease are found, follow the same steps given previously when finding problems with the root systems.

When purchasing rosebushes that are started in pots it is still necessary to take a look at the root system. Have one of the store or nursery employees tip the rosebush upside down while firmly holding the rose at the point where it enters the soils in the pot.

If the soils easily spill out of the pot to the point where the roots are exposed, it has not been in the pot long enough to get the root system growing and developing. In such cases the root system may well be in trouble when it comes to supporting its foliage when removed from the pot and planted in your garden or rose bed. There is nothing wrong with going ahead and buying such rosebushes, just be aware that you will need to keep an eye on the soils moisture and also make some provisions to protect the rosebush from the direct intensity of the sun for at least a couple of weeks. My favorite local greenhouse sells wonderful potted rosebushes that always seem to have very well developed root systems in the pots. When I remove them from the pots the root growth is easily seen and when tipped upside down a little of the top of pot soil may come out but the root zone stays intact. Many folks will say to be sure to get #1 grade roses which is a good idea, however there are times when the marketing folks have a different idea of what makes a #1 grade rosebush than what the typical rule is. The #1 grade rosebush is supposed to be the more mature bush with a better root system and will have 3 or more strong canes at least one of which must be a minimum of 1/2 inch in diameter and 18 inches in length. The #1 1/2 rosebush will have 2 or more canes that are a minimum of 5/16 inch in diameter and at least 15 inches in length. A #2 rosebush has 2 or 3 canes but may all be very small diameters and the root systems are not well developed.

Part of selecting a good rosebush has to do with knowing where in your garden or rose bed you intend to plant it. Read the available information on the rosebush or rosebushes you intend to buy. The amount of room a given rosebush needs to thrive can differ greatly from rosebush to rosebush. Some hybrid teas like to stretch for the sky and do not spread out much. One would want to be careful about planting such roses where roof eaves or overhangs are close by. Many floribundas love to spread out and load up with their beautiful clusters of blooms. One would not want to plant such a rosebush in a tight or limited space environment. Many rose lovers make such mistakes with miniature rose bushes as well. A wonderful lady from California, that ran a miniature rose business originally started by her mother, once gave me a major tip about mini rosebushes. She told me to remember that the “mini” in miniature roses refers to the bloom size and not necessarily the bush. Thus it is just as important to read up on the miniature roses as well to see what their various growth habits are.

Keep in mind that the price you pay for a rose may not be a solid indication of how healthy or hardy the rosebush may be. In some cases I may pay \$3.00 or less for a bare root plastic wrapped rosebush and get exactly what I paid for in that it will need much tender loving care (TLC) to get it going and even with all the TLC it will never really make much of a bush, thus all of that TLC was to no avail as the rosebush either did not perform well or died in spite of it. Thus that \$3.00 purchase added in with all of my TLC time may equal zero in returns and hundreds in frustration.

The same can be said for a potted and started rosebush that costs \$25.00 or more as it may not perform well in my garden or rose bed environment but this is far less likely. Once removed from the optimum greenhouse growing environment, some rosebushes go into a bit of transplanting shock. The rosebush may appear to be stuck at a certain stage and existing buds are not opening and blooming.

As long as the leaves are looking healthy and not going limp and the buds remain erect and do not go limp, things will be fine in time. What we cannot see is the root system attempting to establish itself into its new environment. Adding some vitamin B1 solution, Superthrive or root stimulator and water mix to the soils around the rosebush should help with the shock as well as aid the root system in its development.

One of my grandmothers used to totally disbud the newly planted potted and growing rosebushes thus not allowing it to have that first cycle of blooms in her garden. Her reasoning was to allow the rosebushes energies to go into building and establishing its root system rather than making the rosebush try to do both produce blooms and build up its root system at the same time. She felt that usually either the blooms or the root system, sometimes both, had too much of a struggle thus not performing as well in the long run. The buds would open but the blooms will be flatter than they normally would be or will not last long at all. The blooms may be without the fragrance they were advertised to have. Giving the root system its best opportunity to get well established was the top concern, as the root system must be doing well for the rosebush to pass its “winter test” here in Colorado. So, while difficult to do, the total disbudding of newly planted potted and growing rosebushes would appear to have some merit.

Basically look every rosebush you are considering buying over very well. Then give it your best efforts to give it a good home that it will thrive in. A happy and hardy rose makes for a happy you! Also realize that no matter how much you pay for a rosebush it just may not thrive and that may not have anything to do with your efforts. I have had three rosebushes of the same name and variety perform totally differently. It comes down to the actual “will of the rosebush”. Some have a strong will to thrive and perform, others need more coaxing to perform and some must be part mule as they are stubborn all the way! If you love the rose and want it in your garden don’t give up on the variety, I encourage you to try another rosebush of the same variety. Seek the joy and peace that truly come with growing roses, do your best to keep frustrations to a minimum by studying this object of your affections. Seek out others in your area that grow roses such as any local Consulting Rosarians for their advice on tending to roses as their advice may well be better than any book ever written for growing roses in your location. A list of Consulting Rosarians listed by State may be found at the American Rose Society website at www.ars.org.

Now on to best soils for rosebushes and the preparations for planting as well as the actual planting of our rosebushes...

Best Soils for Roses

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

When one brings up the topic of soils for roses, there are some definite concerns with the makeup of the soils that make them their best for growing rosebushes and having them perform well. We know that the soils pH is optimum at 6.5 on the pH scale (pH range 5.5 – 7.0). The soils pH may be either too acidic or too alkaline, so what do we do to effect the desired change in the pH? To make the soils less acidic the common practice is to add some form of lime. Typically ground agricultural limestone is used and the finer the particles the more rapidly it becomes effective. The amount of ground limestone to be used varies with the current soils makeup. Soils higher in clay will typically require more of the lime additive than those lower in clay. To lower the pH level aluminum sulfate and sulfur are typically used. The aluminum sulfate will quickly change the pH of the soils where sulfur will take longer as it requires the aid of the soils bacteria to make the change. For any pH adjustment, apply the additives in small amounts and test the pH at least a couple of times before adding any more. Amendments to the soils will have some effect upon the overall soils pH, we need to keep this in mind and keep an eye on the pH level. If the rosebushes start to change in their performance or even have an overall change in natural foliage coloration or natural shine, it could very well be an out of balance soils pH problem.

After considering the soils pH we need to look at the beneficial micro-organisms in the soils, we must keep them healthy in order for the proper breakdowns of the elements that provide the food for our rosebushes to take up. Healthy micro-organisms will crowd out *pathogens* (the disease making bad guys...) in the soils by competitive exclusion. In the process of competitive exclusion the beneficial micro-organisms reproduce themselves quicker than the bad ones and sometimes even feed upon them. Keeping the micro-organisms happy and healthy will usually involve adding organic materials/amendments to the soils. **Alfalfa meal** (*Alfalfa Meal is a good source of nitrogen and is nicely balanced with phosphorous and potassium, plus it contains Triacantanol, a growth regulator and stimulant*), **kelp meal** (*Kelp Meal is a slow release Potassium source providing over 70 chelated trace minerals, vitamins, amino acids, and growth promoting hormones*) and **compost** (*Compost is decomposed organic matter that increase microorganism activity and improves the overall quality of the soils*) with some peat moss in it are all wonderful soils building amendments. There are some great organic composts on the market in bagged form, just be sure to flip the bag over to read what all is actually in that compost. You can also make your own compost fairly easily these days with the compost maker kits at local garden centers. Roses prefer a rich loamy soil that drains well. They do not like to have their root systems in soggy wet soils but cannot be allowed to dry out either. A nice pliable moist feel to the soils is what is desired. Nature has a way of telling the gardener when the soils are good.

The earthworms come into the soils and are easily found there. The earthworms help aerate the soils thus keeping the oxygen flowing through it and keeping the entire biological process in good balance, working as a *well oiled machine* so to speak.

The worms further enrich the soils with their castings (a nice name for their poo...), it is like getting free fertilizer for your roses and who does not like that! Basically a good soils makeup for roses is said to be; 1/3 clay, 1/3 coarse sand and 1/3 decomposed organic matter. When mixed together these will give you the right soils blend for providing the best of soils homes for your rosebushes root systems. Once you have felt the texture of this properly blend soils go through your hands and fingers, you will easily recognize it from then on.

Let's move on now to bare root rosebush prep and planting our rosebushes....

Planting Roses in Northern Colorado

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

If the rosebushes we are going to plant have been obtained in Bare Root form, we will need to look them over well once we have received them. Take a good look at the root system and trim off any broken, crushed or diseased looked portions of the roots. Inspect the canes well and prune out or off smashed, broken or diseased looking areas of the canes. Seal the ends of the freshly cut canes with a good white glue such as Elmers Glue or Tacky Glue. Be sure to use a type that does not wash off in water.

Fill a five gallon bucket with lukewarm to cool water up to about two inches of the top of the bucket. I like to add 2 tablespoons of a product called Super Thrive to the soaking water as well. Place the bare root rosebushes into the bucket and allow to soak for 18 to 24 hours. More than one such soaking bucket may be needed so as not to overcrowd the rosebushes in the bucket. The soaking is very important to allow the root system to soak up plenty of water to get them ready for optimum performance once planted in their new homes. Submerging the canes partially or totally will not hurt a thing and can help their moisture level as well.

Now let us take a look at planting our rosebushes....

“Some early planning precedes a good planting”, I always say. I like to plan where the new roses will go the next spring in the preceding fall. I dig the holes for them, amend the soils well and then refill the holes for the roses leaving a 5 or 6-inch mound of the amended soils in each location. By doing this very early digging and amending, the soils have all the rest of the fall and winter to get fully activated. By the time I am ready to plant a new rose, its new home is all ready and in top condition to welcome the new or transplanted rose. The natural nutrients in the amended soils are ready and waiting for the rose to take them up for good growth as well as creating a very favorable environment for the root zone to take hold in.

This same preparation for the new rosebushes can take place in early spring as well, however the amended soils will not have as much time to get activated and ready for optimum root zone nutrients availability.

I dig the rose holes approximately 18 to 20 inches in diameter and approximately 18 to 20 inches deep. The freshly dug soils are placed in a wheelbarrow along with some compost, a good clay buster amendment and some play sand. I sprinkle alfalfa meal over the contents of the wheelbarrow until the entire surface area has a greenish coloration from the alfalfa meal. Using my garden fork I turn the original soils and amendments over and over until well mixed. You will find that the soils mix gets easier and easier to work as it is turned. I remove all clumps of clay that do not want to break up and mix in well. If I have some rabbit droppings available at the time I am doing the soils amending, a heaping garden shovel full of the droppings is added into the soils mix as well. All tiny and large roots in the planting hole from surrounding trees or plants area are cut back and removed.

While digging the planting hole the sides of the hole can become very packed. I use my hand cultivator and loosen up the soils on the sides of the planting hole before refilling the hole or doing any future plantings as well. The freshly amended soils are then placed back into the planting hole leaving the 5 to 6 inch mound at the top. I create a little bowl edge around the mound to help trap any moisture and help carry that moisture into the newly amended soils area.

When the time comes to plant the new rose or roses, the earlier amended soils are much easier to dig out to create room for the new planting. As the soils are removed for the planting they are placed either in a wheel barrow or five gallon bucket making it easy to use them to fill in around the new planting. I place some super phosphate or bone meal in the bottom of the planting hole and mix it in with the soils there. This natural food gives the roots a nice boost to get things growing. Once the planting hole is about half full with the replaced soils, I sprinkle 1/3 cup of organic mix rose food (Gro Rich Rose and Perennial Food or perhaps some Epsoma Rose Tone Rose Food)(also using just alfalfa meal is great) and 1/3 cup Epsom Salts all around the new bush mixing it in lightly with the soils. Water things in lightly.

The planting hole is then filled the rest of the way up to ground level. I move some of the soils in and around the union of the rose and may or may not cover the union at this time depending on the timing of the planting. If it is still early enough to get some very cold temperature dips, I go ahead and cover the union well. If I am planting an own root rose there is no union and no need to be concerned about it. The rest of the soils are pulled back to form a bowl of sorts all around the outer diameter of the bush. The rosebush looks a little bit like a castle in the center of a moat. Extra amended soils are used to build up and firm up the edges of the bowl around the bush. The bush is watered well and the bowl around it filled with mulch. In my case I use either shredded cedar mulch or pebble mulch. (I call the bowls formed this way “banquet bowls” as they help deliver the food and water to my roses.) The bowl formed around the rosebushes acts as a great catch basin for spring rains as well as aiding in the overall deep watering of the rose bush when watered by hand. The bowls work great with drip irrigation systems also but keep an eye on the soils moisture levels, no need to over water things!

I have found this method of planting my roses eliminates the forming, or encouragement of, “**rose suckers” from planting the rose union deeply right away (As an aid in future winter protection the union is often buried a good 2 inches below the surrounding grade level in my area of Colorado.).

[**Rose suckers are new shoots that come up from the rose planting that are below the grafting or union point of the rose bush.] If you plant only “own root” roses you will not have to concern yourself with taking such precautions against sucker shoots, as whatever comes up from the root system will be the desired rose.

With my bowl method the graft or union area of the rose is left above the planting soils yet still below the surrounding grade level until the time comes for it to be protected for the winter. Very early spring plantings may require that the union/graft area be covered for a while until the weather gets more settled towards being warmer.

Once the time comes for winter protection, the bowl around the rose is used to add extra soils to create part of the mound for protection of the rose’s union/graft area. Soils are mounded up over the graft/union area first. Mulch of some kind is then added to help hold the soils in place and help prevent the erosion of the mounded soils throughout the winter.

The last frost date here in Northern Colorado is around May 15th however, keep your eye on the weather reports! Those sneaky unexpected late frosts have taken the life of many a rosebush!

Next up, let us take a look at watering (hydrating) and feeding our rosebushes...

Hydration and Feeding of Roses

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

Two very important aspects to growing good, happy and healthy roses are feeding them and watering them well.

First we will take a quick look at **watering (hydrating)** the roses. Some rosebushes, such as Tuscan Sun, will let you know right away when they need a drink. Other roses will tolerate things for a long while and then, seemingly all at once, look sick and droopy. The key to the watering function appears to be like many other things in our lives, as it has to do with some good record or time keeping. Making note of the last time the roses were watered on a calendar takes little time and is a great help to our already overloaded memory banks! Some folks use a deep watering device to water their roses, some have things all set up on automatic watering systems and others, like me, water their roses with a watering wand. When I water my roses I simply fill the “banquet bowls” I have formed around each bush until the water starts to puddle a bit, then move on to the next bush. After having watered 5 or 6 rosebushes I go back to the rose I watered first of the group, watering it until the puddling of water starts a second time for each rosebush.

By allowing the first watering to soak in well before the second amount of water is applied the water is going deeply into the soils around each rosebush. In times of drought and as a water conserving measure on my part, I will often conduct some moisture meter tests around the rose bushes when I think it may be time to water them again. I push the Soils Moisture Meter probe down all the way into the soils surrounding each rose in three different locations to see what moisture readings I get. These readings will give me a good indication of whether I really need to water the rosebushes then or if the watering will wait a few days. By conducting the moisture meter tests I am making sure the rosebushes have good moisture down deeply by their root systems yet not watering when the need really is not there. Such a method conserves our precious water, promotes root growth as they reach out more to find available moisture, as well as keeps the rosebushes well hydrated without overwatering them.

Some important items to consider in the area of watering our roses are;

1. Be sure your rosebushes are well watered/hydrated **before** the application of any pesticide.
2. When the temperatures are in the 90s to 100s keep a close eye on watering your roses. It takes no time at all for heat stress to set in. Watering daily may be in order. (Mulching the roses will help but is not a total problem solver.)
3. Watering your rosebushes by hand in some manner gives you a golden opportunity to look over each one well. *Finding an insect, fungus or other problem early is priceless when gaining control over the problem.*
4. Mulch around your roses to help hold in the very important moisture.

Feeding our rosebushes enough, truly giving them all the nutrients they need, is of great importance if we want healthy rosebushes that produce a bounty of wonderful blooms. There are just about as many rose foods or fertilizers available these days as someone could think up a name for. Some of the rose foods or fertilizers are organic and will not only have food for the rosebushes in them but also materials that enrich the soils. Enriching the soils as well as taking good care of the microorganisms that dwell therein is a very good thing indeed! Healthy well-balanced soils allow the root systems to take up all the required nutrients better, thus creating a happier, healthier more disease resistant overall rosebush.

Most chemical rose foods/fertilizers have what is needed for the rosebush but need a little to a lot of help with the materials to enrich and build the soils home of our rosebushes. Using some alfalfa meal and kelp meal along with the food/fertilizer of choice is a great way to give both the rosebushes and the soils some important nutrients. Rotating the type of chemical food/fertilizer used along with an organic rose food is recommended. Continually using the same food/fertilizer, or one with exactly the same makeup, can lead to a build-up of unwanted salts in the soils as well as not providing the nutrients that the soils micro-organisms need. (Being sure that you maintain good drainage around your roses will help prevent such salts build-up as well.) Along with adding the alfalfa meal and kelp meal, at the time of first (spring) feeding or my last feeding of the season (no later than September 1st in my area), I will add some super phosphate and potash.

Generally, in my opinion, you want to look for a rose food/fertilizer that has a well-balanced NPK rating no matter what brand or type it may be. In the water-soluble types I have used Miracle Gro for Roses, Miracle Gro All Purpose and Peters All Purpose. I liked the Peters All Purpose simply because of the evenly balanced NPK rating of 20-20-20 it carried, however it has become very difficult to find, any of them for roses or for all purpose use will work well as long as the N-P- K ratios are not too out of balance. I do not recommend using this form of fertilizing too often as it will increase soils salts and does little to enrich and build the soils home for our rosebushes. (Remember: N is for Up, P is for Down and K is for All-Around.) Making the decision as to which product to use becomes one of personal choice. When you find something that works well for you, stick with it. The main thing is to keep the rosebushes well fed and healthy so that they have plenty of stamina to make it through the winter/dormant season here in Colorado as well as blooming nicely for us during the growing season. A very good organic mix rose food here locally is one called Gro Rich Rose & Perennial Food. It is available from some local garden centers, as well as some area nurseries or greenhouses. Some other good organic based rose foods are Epsoma Rose Tone, Nature's Touch Rose and Flower Food and Mile Hi Rose Food. For the chemical blends I have used Vigoro Rose Food at times with good results.

I try to stay away from the “systemic” rose foods/fertilizers. Not because they do not have all the nutrients needed for healthy roses. The chemicals in the systemic type foods/fertilizers concern me. I have stated in other articles that I do not want to drive away any of the worms or microorganisms in the soils around about my rosebushes, as they are a major component of what make the environment suitable for my roses to thrive. However, there are some problems with insects that are highly difficult to gain control of without their use. Using the least amount possible to gain the control needed is highly recommended. The addition of alfalfa and kelp meal, along with some good compost to the soils is extremely important when using the systemic fertilizers to keep the soils well balanced with nutrients for our rosebushes and their friend organisms.

In our busy lives we want something simple, quick and easy to do most chores. Thus there is more time for enjoyment and less time having to work or spend with the nurturing time. Some parts of that thought process are okay while other parts carry some very real problems in the long run. So as not to get too far onto a soapbox I will let you make up your own mind on the products used. Just be careful with the products you choose to use, spend some time not only reading the “*how to apply*” portion of the label but the “**entire**” label, preferably **before** buying the product.

You might just be amazed at what you were about to use on your wonderful rosebushes or place into their “root zone” environment.

Remember to water your rosebushes well either in the early evening or morning before application of any pesticide and I recommend before feeding time as well. Water your rosebushes well again after feeding, they will love you for it.

The time spent tending to your roses will bring forth equal rewards. Even if you call it “working in the garden”, it is work that brings forth many a blessing as well.

Here are a few good and valuable notes about fertilizers and fertilizing to keep in mind....

- Organic fertilizers need time to release their "goodies". The organic nitrogen is not available to plants until they are converted to soluble inorganic forms. Microorganisms in the soil do this job. You, therefore, get a natural form of slow release fertilizer. The release of nutrients is dependent on the population density of the microorganisms that are around to do the job and how active they are. And they work at different rates depending on the soil conditions - temperature, availability of moisture, aeration, etc. Which is just about perfect, since plant growth and nutrient needs increase as the temperature rises, just at the same time when microbial activities increase. These fertilizers, therefore, need to be applied early in the season, because it will take some time for the nutrients to be made available to the plants. How long? This depends - on the type of fertilizer, the soil type, and the ambient temperature. A good practice is to apply a mixture of bone meal (*for phosphate*) or super phosphate, blood meal or fish meal (*for nitrogen*) and alfalfa meal in early spring, generally when the first Spring pruning is done and the winter protective mulches are pulled back.
- Synthetic fertilizers in general release their ingredients relatively quickly. Unlike organic fertilizers, whose ingredients are stored in the organic non-soluble form until released by microbes, the synthetic fertilizers have ingredients that are soluble, and tend to leach out quickly with the rain. Thus application of these after the roses are showing unfurled leaves is recommended.
- The prices of the different synthetic fertilizers depend on the percentage concentration of the nitrogen, phosphate and potassium in the fertilizer and on how the ingredients are packaged. The cheaper ones probably are dissolved and released relatively quickly, whereas some of the mid-range priced ones are a "slow release" granular (but not in the encapsulated form of Osmocote, which is very expensive). ***Keep in mind that the faster the fertilizers are released, the more likely they are to cause damage due to root burn, and the more quickly they get leached out with rain and watering.***
- In plant growth and health, both non-mineral and mineral nutrients are essential. The non-mineral nutrients of carbon, oxygen and water are freely available in air and water. These are fixed by the process of photosynthesis, using the sun's energy. There are 13 mineral nutrients of which there are three **primary** macronutrients - nitrogen, phosphorus and potassium (the NPK in your fertilizer label) - and three **secondary** macronutrients - calcium (Ca), magnesium (Mg), and sulfur (S). The secondary macronutrients are usually available in sufficient amounts in most soils, but are more likely to be deficient in sandy soils.

When we add lime, we are adding calcium and a bit of magnesium. When we use organic materials such as; compost & grass clippings we provide sulphur. The remaining 7 mineral nutrients are ***micronutrients***. These are essential elements that are only needed in small to minute amounts - boron (B), copper (Cu), iron (Fe), chloride (Cl), manganese (Mn), molybdenum (Mo) and zinc (Zn). If you use lots of organic material, notably from the compost pile, you will be providing plenty of these micronutrients. However some fertilizers are packaged with small amounts of these, just to be sure.

- In general, if you have great, organic rich soil, additional application of micronutrients may not be necessary. It's a different story, however, with container growing. Over time, these minerals will be depleted with repeated waterings (and rain). Regular application of a soluble fertilizer is recommended as it has these micronutrients for container grown plants.
- Until the soil has built up enough of organic components to its composition, the virgin soil is usually lacking or short of the mineral macronutrients. When plants first grow on those soils, their growth "sucks" those macronutrients out of the soil, depleting the soil quickly. That's where the bulk of fertilizing comes in - to constantly replenish the soil of these nutrients, especially at times of vigorous and rapid vegetative growth.
- Of these macronutrients, Nitrogen (**the N in NPK**) promotes top growth - stems, foliage. It contributes to chlorophyll production, which gives the green color of healthy plants. More chlorophyll means increased photosynthetic capability therefore more plant growth.
(Memory Note: N = UP, P = DOWN and K = ALL-AROUND)
- Phosphorus (**the P in NPK**) promotes root development and increases flowering ability and bloom size. This is useful when you are planting that new mail order bare root rose in the garden, or when you are transplanting. It helps the plant establish faster by helping it grow a good root system quickly. Once established, it continues to help the plant maintain a good root system and promote flowering.
- Potassium (**the K in NPK**) is multi-functional. It promotes disease resistance and improves drought and cold tolerance. It helps in improving root development and promotes photosynthesis. I apply high-potassium fertilizer in late fall/early winter to improve cold hardiness. Some would recommend an application in early summer to improve tolerance to excessive summer heat, or for recovery from pest damage.

- Most of you probably know (but some may like to know) that the three numbers, e.g. 6-8-6, refer to the percentages by weight respectively of the elements nitrogen, phosphorus and potassium in the fertilizer. In another example of NPK of, say, 20-10-4, the respective compositions of nitrogen, phosphorus and potassium are 20%, 10% and 4%. A laterally thinking gardener would jump out of his chair and exclaim, "Hey! That's only 34%!" Well, yes. Because the rest is made up by other ingredients, largely fillers. The fillers help spread the fertilizers more evenly. Moreover, the choice of the filler determines how quickly the fertilizer gets released into the soil.

Here is a listing of some of the diseases that we may have to deal with, *unfortunately*, in growing our rosebushes...

✓ **Black spot**

Black spot is the most common disease found on roses, especially in warm humid climates such as in the southeastern US. It is caused by a fungus called *Diplocarpon rosae* which spreads by water and germinates in warm temperatures. The fungus causes black spots to appear on the leaves. The spots have irregular or feathery edges. The leaf eventually turns yellow around the spots and may fall off. Leaf loss due to black spot can defoliate a bush; however, black spot rarely kill a plant. Some plants are more naturally resistant to black spot, so the first line of defense is to choose varieties that are resistant. Watering by irrigation rather than overhead, and encouraging good air flow around bushes by adequate spacing and selective pruning may reduce the time the foliage is wet and reduce black spot. Fungicides may be used as a preventative to control black spot, but they must be used properly and regularly. Alternating fungicides is encouraged to avoid resistant strains of the fungus from forming.

✓ **Rust**

Rust is a fungal disease caused by various forms of the fungus *Phragmidium disciflorum*, and is most common in the western US. Symptoms usually appear in the cool moist weather of spring, beginning as small rust-colored spots on the undersides of leaves and eventually becoming visible on the upper sides as well. Spores over winter in infected plants so removal of infected material can help prevent reinfection the following year. Preventative fungicides are available, and reducing the moisture around plants by as for black spot control also helps control rust.

✓ **Powdery Mildew**

Powdery mildew tends to appear during times of warm dry days followed by humid cool nights. A grayish white fuzzy coating appears on the new growth of roses, including the buds. The disease is caused by an airborne fungus called *Sphaerotheca pannosa* var. *rosa*, and preventative sprays are available. As with black spot, some rose varieties are more naturally resistant than others. Removal and disposal of infected materials also helps control powdery mildew.

✓ **Downy Mildew**

Downy mildew is a rapid and destructive disease caused by the fungus *Peronospora sparsa*. The fungus occurs on the flowers, leaves, and stems of roses, appearing as dark purple, purplish-red, or brown irregular blotches. Yellow areas and necrotic spots appear on the leaves as the disease advances. Fungus formation is favored by high humidity (> 90%) and cool temperatures. Downy mildew advances rapidly so action must be taken immediately when found. Removal and disposal of all infected material is required because the fungus can remain dormant and cause reinfection. If a plant becomes infected with downy mildew, spraying is recommended since severe cases can kill plants. Preventative sprays are available.

✓ **Botrytis**

Botrytis, called botrytis blight, is caused by the fungus *Botrytis cinerea* and is most prevalent in humid or wet weather. This fungus appears as gray mold on flower buds, which often fail to open properly. When open, the petals may have many small dark pink spots.

✓ **Canker**

Canker and dieback are caused by many different fungi. Canker usually appears as a brown, black or gray area on a stem, turning necrotic. They often occur due to injury or cold damage. Cut out the infected area back to healthy tissue. **Tip:** Cleaning your pruners between rosebush prunings with Clorox, Lysol or other antibacterial wipes will help stop the spread of the fungi from rosebush to rosebush.

✓ **Anthraco**

Anthraco is caused by the fungus *Sphaceloma rosarum*, and results in dark red, brown, or purple spots on the upper sides of leaves. The spots are small (apprx. 1/8 inch), circular, and develop a gray or white dried center that may eventually drop out.

✓ **Rose Mosaic Virus**

Rose mosaic virus is a general term for several viruses found in roses that cause reduced vigor, distorted leaves, and reduced flowering. The only way to know if a rose has virus is to have it tested, or if it shows one of the typical yellow streak patterns on the leaves. For images of virused leaves, see Baldo's Bugs and Roses Website on-line at <http://members.tripod.com/buggyrose/>. The virus is not curable by any means available to the home gardener. It is not generally fatal, and it is not transmitted by means other than grafting.

✓ **Rose Rosette**

A virus transmitted by microscopic mites. The virus is contagious and usually fatal to the rose. Symptoms are aberrant or excessive growth, excessive thorniness on new growth, and witch's brooms. Infected growth must be removed as soon as possible. Sprays for mites can help control further spread.

(HELPFUL NOTE: Green Cure is an excellent fungicide that will prevent as well as stop many of the fungal rose diseases noted above. This is also an Earth Friendly product.)

Moving on from the unpleasant but need to know items above, let's take a look at pruning our rosebushes next...

Pruning Roses in Northern Colorado

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

I am what is known as a "Spring Pruner" when it comes to pruning the rosebushes. Instead of pruning the roses way down in the fall after they have gone dormant, I like to wait until early spring when I see the leaf buds starting to form up well. My taller rose bushes do get a pruning down to about half their height once they have gone dormant in the fall. The fall pruning I do is to help prevent damage to the overall bush from winter winds and heavy snows. The winds and heavy snows can break over long rose canes causing great damage to the overall bush, sometimes to the bushes nearby as well.

I do the standard "by the book" type pruning with my hybrid tea roses for the most part. I select an outward facing leaf bud eye and prune on an angle away from the bud eye 3/16 to 1/4 inch above the bud eye. That cut is then sealed with white glue that is not water-soluble.

There are times when a particular cane may be at a fairly harsh angle from the center of the bush. In such cases I will select an inward facing bud eye and prune there. By pruning at the inward facing bud eye the new cane that grows forth will come back into alignment with the rosebush for a better looking overall bush. You need to look at each rose bush kind of like an artist looks at a blank canvas. Picture how you want the rose to be shaped. Then prune the bush accordingly. I prune all of my rosebushes with the “blank canvas” approach. A blooming rose bush is truly beautiful without a doubt. However a rosebush with wonderful overall form and loaded with beautiful blooms is indeed a work of art.

Here in Colorado, even with mounding the rose for winter protection, we can get some very significant cane dieback on our roses. There have been many times when the canes that are left on the roses after spring pruning are only 1 ½ to 2 inches long. Pruning down that far is required to get to a good white center of cane pith and a healthy bud eye. Such harsh pruning can make it extremely tough on the “blank canvas” approach yet it is still possible. You need to focus on where the bud eye is located and envision where the particular cane will be as it grows. You do not want canes to cross over one another creating a jumbled mess in the bush where insects or funguses can cause problems. Yet you do want a nicely shaped bush with lush foliage to properly display the beauty of the blooms.

The floribunda and grandiflora rosebushes get pruned in much the same way as the hybrid teas except that I do not worry much about finding outward facing bud eyes. I still keep in mind where a cane will go as it grows so as to avoid the crossing canes. However with the floribundas and Grandiflora rosebushes I like a full looking rosebush that will fully present the beauty of the clusters of blooms against their rich foliage.

In my opinion, when making the pruning cut, it is better to have a flatter cut than a cut that is too steep. The angle of the cut is somewhat important to allow moisture runoff and such, yet it is not a crucial error if the cut is considerably more flat than a 45-degree angle. The cut end of the cane can still be sealed and the new growth that forms from the bud eye still has a good base for support. Whereas a pruning cut that is too steep exposes more of the center pith than should be exposed and provides an extremely weak foundation point for the new growth. The steep cuts are also extremely hard to get a good seal on and will tend to allow easier pest invasion.

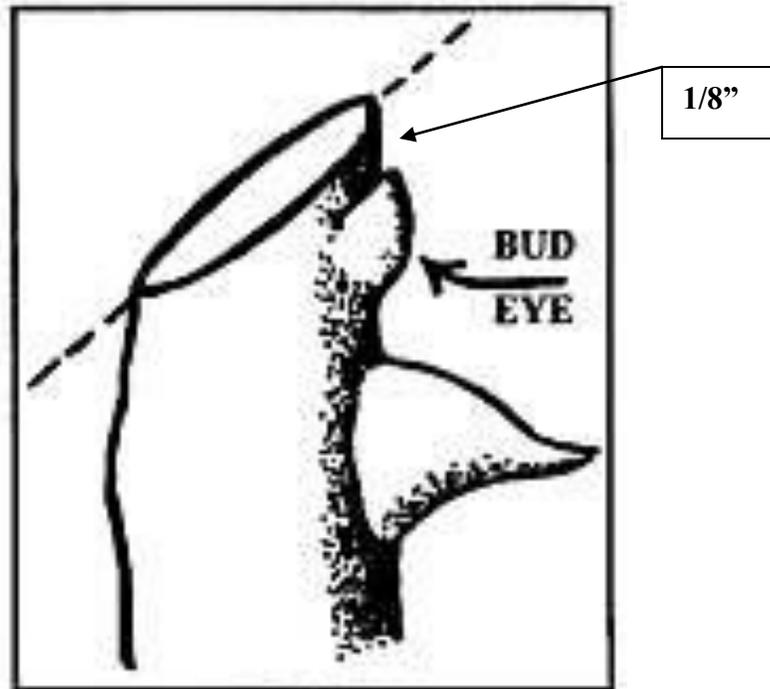
My mini roses are truly easy to prune as I simply prune away the winterkilled portions of their canes while forming up the bush. If the centers of the mini roses are too full I simply prune a couple of small canes out and the bush is done. In no time at all the new growth will have the overall form of the bush right where I want it.

When deadheading my roses I prune back to the first five-leaf junction with the main rose cane, as long as the cane in that area is sturdy and at least 3/16 of an inch in diameter. Too small of a cane at the area of new growth generation and future rose blooms will cause a sagging effect if the roses blooms are large blooms. In cases where the cane is too thin at the first five-leaf junction, I will prune down to the next junction where the cane is the desired size. The mini roses are an exception to this deadheading/pruning. When pruning my mini roses I simply prune off the bloom down to where the stem meets with the first group of leaves with no apparent effect upon the size or support of the rose blooms to follow.

Some other very important things to remember when pruning are:

1. Always seal the ends of the pruned canes that are 3/16 of an inch or larger in diameter with white glue (Elmer's or Tacky Glue) sealer. This will help keep the cane borers away.
2. Always wipe down the pruners cutting blades with a Clorox or Lysol disinfectant wipe or dip the cutting blades into some form of disinfectant solution after pruning each bush. In some cases it may be necessary to wipe or dip them after each cut, such as when pruning out an infected or diseased cane. You do not want to spread the disease from an infected cane or bush to other canes or other rosebushes.
3. When finished pruning for the day and after disinfecting your pruners, spray the blades with some silicone lubricant spray or other protective lubricant. It does not take long for rust to form and damage your pruners. Plus the lubricant helps keep the pruners working well and not so hard on arthritic hands.

Proper Angle of Pruning Cut



We cannot really thoroughly discuss pruning without also bringing in the Deadheading of our rosebushes (the process of removing old/spent blooms)....

Deadheading Roses

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

The subject of “deadheading” or the removal of the old blooms from our roses seems to generate some controversy much the same as pruning them. Basically, when it comes to deadheading your rosebushes, I recommend using a method that gives you the results you are looking for. Should you be told that you are doing it “all wrong”, do not immediately believe that you are.

I witnessed and was taught various methods of deadheading by my Grandmothers and my Mother as a young man. I not only witnessed and learned each method but also saw how the rosebushes responded to each method. For my mother, a side concern of deadheading seemed to be how the overall bush looked after the deadheading routine, as far as its overall shape and harmony with the garden or bed the roses were in.

Deadheading was not only the removal of the spent blooms, it was also a time to shape the rosebush and consider how and where the new growth would come in.

My grandmother, Mary May, would walk around her rose gardens at deadheading time and take a particular spent bloom in her hand. With a quick motion she would “snap” the bloom off. This would leave a bare stick of a stem standing up in the air a little ways above the foliage. There was no shaping of the bush done with her method, as all she really cared about was the pretty blooms. The looks of the overall bush really did not seem to matter so much to her. She felt that she got repeat blooms quicker using her method and stuck with it.

My grandmother, Molly, would prune off the spent blooms down to a healthy looking leaf set junction with the cane. It did not need to be a five-leaf junction. The pruning point could be at a three-leaf junction as long as the cane looked sturdy and healthy there. Although she did not really concern herself with the overall shape of the rose bush, her method always left the rose bush looking better without all the remaining stems sticking up in the air all over the place. Well, in my opinion anyway!

Over the years, I honestly do not remember the differences in repeat blooming being that great with any of the methods. I do remember my grandmother Mary May that used the “snap-off” “deadheading method, complaining sometimes that a new big bloom would sag or “flop over” as its stem was too weak to support the new big rose bloom

I have heard and read that deadheading to the first 5-leaf junction when pruning Hybrid Tea roses is a “myth”. Yet I have observed first-hand the problems that can come about by not doing so, especially with large blooms.

There have been times when I have pruned, or deadheaded, back to a second five or more leaf junction just because the cane looked too small in diameter to support a new nice big bloom.

One rule of thumb relates to deadheading to the first 5 or more leaf junction where the cane diameter is approximately that of a pencil. There is no need to get out any form of measuring device to check the diameter. It is simply a matter of what looks sturdy when comparing the diameter of the cane or stem at the point considered for deadheading, and the diameter of the stem for the bloom that is to be deadheaded. If the bloom being deadheaded was a nice big one and did not sag or droop, then that same diameter of cane should be sufficient to support the new growth and bloom. If the bloom being deadhead did have a droopy nature, perhaps it would be best to prune back to a larger diameter leaf-set to cane junction.

With Floribunda and Grandiflora rosebushes I learned to prune back to a sturdy looking leaf-set to cane junction. The five-leaf rule does not need to apply with these wonderful bushes. Nor does it apply to deadheading my miniature rosebushes. Still of concern with these rosebushes is keeping an eye on where the new growth will come in at, or in other words, deadhead to a leaf-set junction where the new growth will go in the proper direction for the particular bush. When the overall rosebush has a tight center portion already, it would be best to deadhead to a point where the new growth will go out and away from that tight center growth area. For my Floribunda and Grandiflora rosebushes I prefer to have a full looking bush so I will deadhead to a point where the new growth will come more into the center area of the bush at times.

One key thing I recommend **before** deadheading any rosebush is to step back and take a good look at the current rosebush. Then do your deadheading looking towards where the new growth needs to go to achieve or maintain the shape that you desire for the overall rosebush.

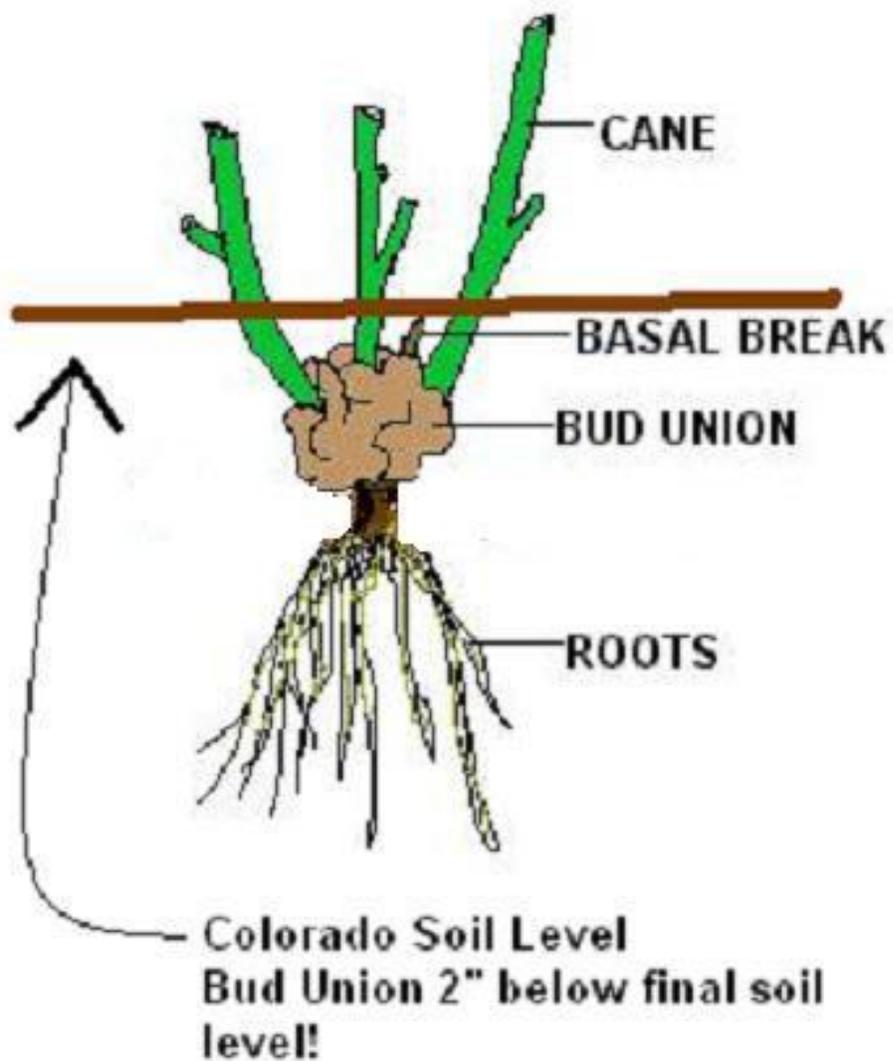
As one of my final touches after deadheading, I seal the ends of all the freshly pruned canes with Elmer's White Glue or the Tacky White Glue from craft stores. This helps to keep the cane borers or cane boring wasps from entering into the tender fresh center pith of these cut cane ends causing the death of the cane, a portion of the cane and even sometimes the entire rosebush. It is important to use the non-water soluble White glue and not the school glue so that the hard seal is maintained over the cut end of the cane and does not wash off. Some folks tell me they have used wood glue for this but I cannot recommend its use, as when I used wood glue it caused significant cane die-back from the point of its application. I have been informed that some formulations of wood glue may contain chemicals that will cause the die back of the living tissues.

My final touch to the deadheading process is to water each rose well and gently rinse down all the foliage on each bush that has been deadheaded. The roses do seem to appreciate as well as respond to this final touch.

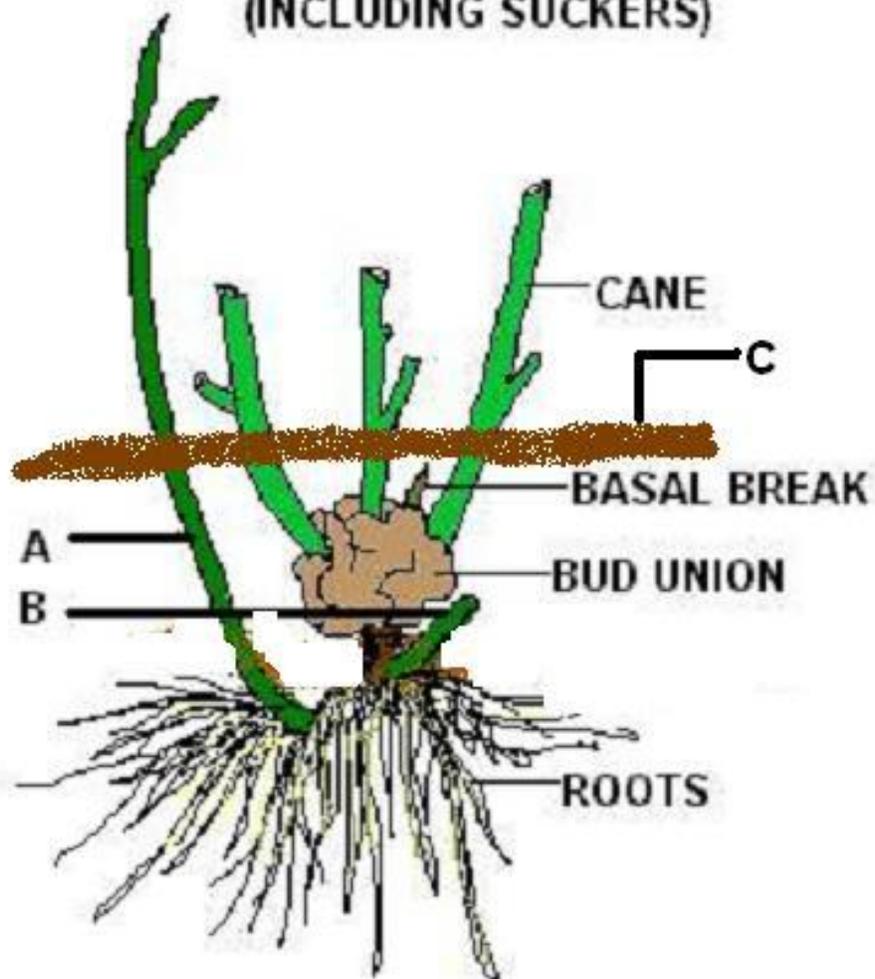
Find a deadheading method that gives you the results you like and stick with it. No matter what method or technique you choose, enjoy tending to your roses! They enjoy the time you spend with them and will reward you in full measure.

Following are some diagrams of rosebushes and other useful information for you as well.

THE PARTS OF A GRAFTED ROSE



THE PARTS OF A GRAFTED ROSE (INCLUDING SUCKERS)



A = Sucker from the roots

B = Sucker from rootstock, below grafts

**C = Soil Level - Bud Union to be 2" minimum
below Soil Level for Colorado**

NOTE: Remove all suckers as they will steal nutrients from the desired top rosebush and kill it.

Types of Roses and Their Habits

«»- Hybrid Teas:

When most people think of a rose, they are thinking of hybrid teas. Normally a hybrid tea has a large bloom at the end of a long cane. They are the most popular roses sold at florist shops. They are generally upright growing plants from 3-6 feet and the blooms come in most colors, except blue and black. Examples include Double Delight, Mr. Lincoln, St. Patrick, Veterans' Honor, Gemini, and Brandy.

«»- Floribundas:

The floribundas were once called hybrid polyanthas. In the 1940s, the term floribunda was approved. They are usually smaller plants with smaller blooms that tend to come in clusters. There are some, where the bloom comes singularly. Disbudding some of floribundas will lead to a bloom that is very similar to a hybrid tea bloom. The cluster types make great landscape plants. Floribunda roses come in most colors. Examples include Iceberg, Angel Face, Playboy, Playgirl, Betty Boop, Honey Bouquet, Simplicity, Sexy Remy, Tuscan Sun and French Lace.

«»- Grandifloras:

The grandifloras are allegedly a combination of hybrid teas and floribundas with some one-bloom stems and some cluster blooms. The grandiflora term was coined by nurserymen for the rose Queen Elizabeth, which was introduced in 1954, even though Buccaneer could have been argued as the first of this type of rose. The term grandiflora still remains, however, the term is losing distinction over time and could easily disappear. Grandifloras (Gr) are tall elegant plants (6 foot height is not uncommon), which bloom repeatedly during the season, and generally feature clustered blossoms with stems, which are slightly shorter than those of hybrid teas. Examples include Queen Elizabeth, Gold Medal, Octoberfest, and Arizona.

«»- Miniatures:

An important thing to remember about miniatures is that the term “miniature” most times refers to the size of the bloom, not the size of the actual rosebush. The blooms can range from 1/2-inch up to 2 inches. Miniatures are very popular and can be grown in containers. The plants range in size from about 1-3 feet in height and some in spread. Examples of miniatures include Hot Tamale, Winter Magic, Harm Saville, Irresistible, Kristin, and Arcanum. {Note that miniature rosebushes can come as climbers and tree roses as well.} {*Miniature roses are grown on their own root.*}

»- **Mini-Floras:**

Mini-floras are a new classification. They are too large to be a mini, but could be too small for a hybrid tea or floribunda. I find most of the mini-floras to be awkward in the landscape. Examples of mini-floras are Cachet, Autumn Splendor, Dr. John Dickman, and Butter Cream. { *Mini-flora roses are grown on their own root.* }

»- **Climbing Roses, Ramblers & Sports:**

Climbing roses are mostly very vigorous roses that can grow to great heights. There are three general types. Large flowered climbers (LCI) are more modern and have stiff canes and usually have good repeat bloom. They can range in size from 8-20 feet. The blooms come in many colors and can have blooms singularly or in clusters. Examples include America, Altissimo, Fourth of July, and Berries 'n' Cream.

The **rambler** types of roses are usually older roses that are once blooming, usually in the spring or early summer. While once blooming, most will be covered with blooms for a month or more. They are excellent for training on pillars, pergolas, and trellises. The canes are pliable, and the blooms are small and come in large clusters. Examples are American Pillar, Seven Sisters, and Newport Fairy.

Next are the **sports** of hybrid teas, floribundas, and others, which resemble their bush counterpart except for their climbing growth habit. These usually have an outstanding spring bloom, followed by scattered blooms later in the fall. Examples include Cl. Double Delight and Cl. Queen Elizabeth.

»- **Old Garden Roses:**

The old garden roses consist of rose classes that existed prior to 1867, the date of the first hybrid tea, La France. The classes include the species (wild) roses, albas, bourbons, centifolias, damasks, eglantines, gallicas, mosses, noisettes, portlands, teas, etc. They come in every growth and bloom pattern and color imaginable. They can range from 1 foot to over 50 feet in height. About half of these roses have good to excellent repeat bloom. Usually obtain through mail order sources. Examples include Lady Banks, Rose de Rescht, Baronne Prevost, and Sombreuil.

»- **Shrub Roses:**

This is often referred to as a catchall group. They are generally roses that are hybrids of species, or roses that do not fit nicely in other classes, such as David Austin "English" roses and Dr. Griffith Buck's roses. They are extremely varied botanically and most are available through mail order. Examples are Distant Drums, Golden Celebration, Mary Rose, Perdita, Hansa, Hawkeye Belle, Starry Night, and Ballerina.

»- Polyanthas:

Polyanthas, the "petite" roses of yesteryear, are almost the forgotten class of roses. Of the 500 or so polyanthas introduced since 1875, there are only some 20 or 30 available, usually through mail order. These are low-growing bushes with small flowers in clusters. Common examples are Cecile Brunner, China Doll, Verdun, and The Fairy. Predecessors of the floribunda class.

»- Tree Roses:

The standard tree rose has a 36" trunk and full-sized flowers. They are very elegant lining a walkway or as a feature amongst other plantings. These roses are rose plants grafted on top of a hardy rose can stock bush and are not typically very hardy in Colorado. The top part, which is the desired rose, will typically freeze at the graft points and kill it. Thus all that is left to grow is the rose stock bush used for the "tree trunk" part of this grafted creation.

»- Romantica Roses:

Like the English Roses, the French Romantica Roses by the House of Meiliand are modern roses crossed with Old English Roses. However, the Hybrid Tea influence is much greater in the Romantica Series. Romantica roses all have names of well known people in history such as Leonardo da Vinci, Toulouse Lautrec, Auguste Renoir etc. Romantica Roses tend to be more floriferous, with stronger cutting-length stems and have lusher, more disease-resistant foliage than English Roses. Romantica roses also perform better in the South than English Roses, which tend not to flower well in hotter areas.

»- Rugosa Roses:

Rugosa roses are sturdy, handsome shrubs. Blossoms come in white, several shades of pink, red to almost purple, singles and doubles -- most showing centers of attractive yellow stamens. Rugosa rebloom intermittently after a heavy June bloom. Rugosas' tough, textured, deeply veined foliage and erect, spiny stems distinguish them from other roses. Rugosa roses are particularly useful for hedges and ground covers. Rugosa roses are hardy to Zone 3. Their preference for light, sandy soil in full sun to partial shade make them especially suited for seashore planting. Rugosa roses tolerate both salt and drought. Rugosas require no spraying for disease and little fertilization. Prune out only the old, worn-out canes. In autumn Rugosas have beautiful, orange-red hips, rich in vitamin C, that attract wildlife and are useful for jelly. Examples: Fru Dagmar Hastrup & Moje Hammarberg.

Some of my favorite soils additives for my rosebushes and how to apply them....

☪ Alfalfa Meal

Alfalfa provides many nutritional benefits not only for plant use, but for soil organisms as well. One very important ingredient is tricontanol, a powerful plant growth enhancer. Alfalfa Meal is a good source of nitrogen and is nicely balanced with phosphorous and potassium. The carbohydrates and protein in it make alfalfa meal an excellent soil conditioner by encouraging microbial activity in the soil.

Application: Scratch 1 cup into soils around base of rosebushes at first feeding and at third feeding each season for large established rosebushes. For miniature rosebushes use ½ cup. Water roses well after application.

☪ Kelp Meal

A slow release Potassium source providing over 70 chelated trace minerals, vitamins, amino acids, and growth promoting hormones (Plant growth hormones; auxins, cytokinins and gibberellins are released which are essential for cell division and cell elongation, basic functions of plant growth, enhanced seed germination, early emergence, stimulated root and shoot growth. Kelp meal is an excellent source of organic matter due to its rapid rate of decomposition. The application of kelp meal acts as a soil conditioner by stimulating microbial activity. Kelp meal helps to protect plants from unexpected frosts as well as help plants through extended drought periods.

Application: Scratch ½ cup into soil around base of established rosebushes and water in well. Use 1/3 cup for miniature rosebushes.

☪ Epsom Salt

Magnesium and sulfur are the two major components of Epsom Salt. Crop researchers have determined that magnesium is: A critical mineral for seed germination, Vital to the production of chlorophyll, which plants use to transform sunlight into food and an aid in the absorption of phosphorus and nitrogen, two of the most important fertilizer components. Epsom Salt encourages flowering canes and healthy new basal breaks (new cane growth).

Application: Scratch 1/2 cup into soil around base of each rose bush except miniature rose bushes. For miniature rosebushes use ¼ cup to 1/3 cup depending on bush size and water in well.

I hope you have found this information useful thus far. Now we must discuss preparing our rosebushes for their Winters Nap, as I call it, or Winter Dormancy Period....

A “Winters Nap” for Your Roses

By Stan V. Griep

Native Colorado Consulting Rosarian

Colorado Native Rosarian 40 plus years experience

Retired American Rose Society Consulting Rosarian

Webmaster: The Colorado Rosarian Website

As hard as it is to do, in cold climates we need to put our roses to bed for a nice winters nap. If we take a little time to do things right now, we will see them burst forth in beautiful bloom come spring. There are many different methods used by cold climate Rosarians like me, so I will just go over some ways that I take care of my roses for the winter.

Once a good hard frost has hit and the ground has become at least somewhat frozen, I mound up garden soils around each rosebush in some of my rose beds. The mound is approximately 6 inches in height. If I do not have some extra garden soil saved up I buy some bagged garden soil at a local garden center for this, well before I actually need it, of course. I make sure not to buy any garden soil that has fertilizer added to it as that is not needed or wanted for this winter mounding use. Once I have formed the mound of garden soil around each bush I water it lightly to hold it in place, a nice layer of shredded cedar mulch is placed over the top of the mounds. I find that the mulch helps to hold the mound in place. I water the completed mounds lightly again to help settle it in place.

When I pull back the mounding and mulch in the spring, the mixture (with some added compost) makes for a great amendment to the soils around the rosebushes. I need to step back just a bit here though. Before I actually do the mounding I will apply two or three tablespoons of super phosphate around the base of each bush and work it into the soils as best I can. The little dose of super phosphate helps keep the roots strong through the winter. The application of a good fungicide back in late fall is highly recommended as well, it simply helps knock down any fungus problems that may try to overwinter and gain an upper hand on the rosebushes.

Some of my roses are planted in gravel mulched beds. In those areas I have done two different forms of mounding for the winter protection. (I give all of these roses the same two or three tablespoons of super phosphate as well.) One way I mound my roses in the gravel beds is to simply form a gravel mound around each rose with some of the existing surrounding gravel. Since it is so simple I use this method on nearly all of them. However there are some roses that are a bit more winter tender and need a little different protection. Since I do not want to pile garden soil on top of the gravel mulch, I put down a 20 to 22-inch diameter circle-cut piece of landscaping fabric at the base of each rose. The landscape fabric has been cut at one side to form a slit as well as a hole cut in the middle to allow placement of the bush into the center of the fabric circle. Once the landscape fabric circle piece has been fitted around the base of the rosebush, I make sure to overlap the cut area so as to seal it into a complete fabric circle without gaps, except at the very base of the rosebush. I form the 6 inch garden soils mound on top of the fabric circle and up around the rosebush.

After completing the soils mounding I apply the same nice layer of shredded cedar mulch to help hold things in place, watering both the soils and completed mounds very lightly. A plastic rose collar can be placed on top of the fabric circle as well and then filled with garden soils and/or mulch, thus protecting the rose and holding the mounding well in place. I water these mounds a little also.

In spring when it is time to pull back the mounding protection I use a garden shovel and place the soils and mulch mixtures in the various areas into my wheel barrel where it is all mixed with some nice compost. The gravel mulch is pulled back away from each of the rosebushes, some of the amendment mix from the wheel barrel is worked into the soils around each rosebush and a bowl shape created with the existing and newly placed soils. At this time the spring feeding is also worked into the soils and the gravel, in the gravel mulched areas, moved back into place and everything watered in well. My other rose bed areas get the soils mix and then are mulched again with some new mulch and watered in well.

The landscape fabric works great to stop the soils from getting down into the gravel and discoloring it or basically just making a mess of the surrounding gravel mulch. I use new landscape fabric circles each year where I use this method. The landscape fabric is purchased in a large roll. I outline and cut out the fabric circles myself well prior to actual need.

It is very important to note, the protection referred to within this article is actually to keep the rosebushes cold once the cold weather has set in. That way the warmth of several days in the winter does not start the rosebush growing again only to get zapped by the freezing cold temps when they return. That fluctuation is what can kill the rosebushes. It is very important to keep them in their cold weather dormant state throughout their “Winters Nap”.

Don't forget about your rosebushes over the winter months!! They still need some watering to keep the roots healthy. Long periods of no snow and winds deplete the moisture from the soils. Water about mid morning when the temps have started to warm up well. Never water late in the day as it will just ice things up, plus the roots do not have enough time to take up what they will and disperse it enough so as not to cause problems when the temps dip down later at night.

(Winter pruning Note: Prune all of your taller rosebushes canes down to half their height once they have started to go dormant [after a few cold nights and hard frosts], this will help to prevent the canes from being whipped by the winter winds and smashed by heavy snows that can break them off clear down into the ground. Do a thinning pruning on the floribundas, shrub roses, mini roses and such to help keep the heavy snow from smashing them down and causing damage to the canes. Wait until early spring for the major pruning.)

Thank you for your interest in growing and caring for rosebushes and for your time reading through this booklet.